



Irish Society of
Chartered
Physiotherapists

The Voice of Physiotherapy in Ireland

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2018

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Book of Abstracts

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Research Presentation: Pain Management

11:00hrs Friday 9th November

Venue: Room Bricklieve

Chair: Siobhán Ní Sheoinín

PM1

ABSTRACT REDACTED AT REQUEST OF AUTHOR

PM2 Psychological Distress in Patients Attending Physiotherapy. A Survey Based Investigation of Current Practice and Opinion of Irish Physiotherapists.

**Mr. Cormac Ryan¹, Ms. Maggie Helm¹, Ms.
Katrina Moore¹, Dr. Caitriona Cunningham¹,
Dr. Olive Lennon¹**

1. University College Dublin

Objectives

The World Confederation of Physical Therapy (WCPT) acknowledges the importance of mental health issues, including psychological distress in physiotherapy practice. Psychological distress is largely defined as a state of emotional suffering, characterized by symptoms of depression and anxiety. It is viewed as a transient phenomenon consistent with a “normal” reaction to a stressor(s) which threatens an individual’s physical or mental health. At present, no clinical practice guidelines at national or international level elucidate the appropriate role of the physiotherapy profession in the care of patients with psychological distress. Furthermore,

current practice of physiotherapists in the care of these individuals is unclear.

The primary purpose of this study was to investigate the current practice and opinions of members of the Irish Society of Chartered Physiotherapists’ (ISCP) with respect to the care of patients with psychological distress.

Method

A cross-sectional, survey-based investigation of Irish physiotherapists. An electronic survey was sent by email to the membership of the ISCP. The survey consisted of closed and open-ended questions, as well as opinion questions with Likert scale responses. Statistical analysis, using SPSS Statistics 24, comprised summary statistics and Chi squared and Mann Whitney U tests. Thematic analysis identified emergent themes from open-ended questions.

Results

In total, 300 responses were received. Over 80% of respondents encounter patients with psychological distress at least once a week, while a further 29% encounter such patients on a daily basis during physiotherapy practice. The majority of those surveyed considered the ability to identify psychological distress to lie within their scope of practice. Sixty percent of physiotherapists reported confidence in their ability to identify psychological distress but recognised greater difficulty with the assessment of psychological distress and acknowledgement of the issue with their patients. A lack of education in the area of mental health was a predominant theme to emerge. Reflecting on current practice, many discussed the importance of addressing underlying psychological issues before or in tandem with physical issues. Respondents who

had engaged in further education in mental health and/or psychology were statistically more likely to assess for psychological distress ($p=0.02$) and refer patients with severe symptoms to support services ($p<0.001$). In addition, those who had engaged in further education perceived both their ability to differentiate between normal psychological responses to illness and mental health disorders ($p=0.04$) and their confidence in recognising signs and symptoms of psychological distress ($p=0.03$) as greater. Respondents with greater than 5 years of work experience were more likely to routinely assess for psychological distress ($p=0.04$) and refer to support services, where necessary ($p<0.001$).

Conclusions

Psychological distress is common in patients attending physiotherapy services. Irish physiotherapists surveyed largely displayed positive attitudes to the psychological well-being of patients in their care. However, additional education in the area of mental health was a recognised need in the profession and when present, was associated with greater self-efficacy and work practices in the care of individuals with psychological distress.

PM3 The development of an online support programme for patients who have completed the Ulysses Pain Management Programme

Mr. David Kennedy¹, Dr. Brona Fullen¹, Dr. Camillus Power², Mrs. Sheila Horan², Mrs. Ruth McCollum², Ms. Laura O'Donnell², Ms. Orla Spencer²

1. University College Dublin, 2. Tallaght University Hospital

Objectives

The efficacy of cognitive behavioural therapy pain management programmes (CBT-PMPs) is well-established. However, maintaining gains and attending follow-up sessions is challenging. An online support programme (OSP) for patients who have completed a CBT-PMP may improve long-term adherence to pain management strategies. The aims of this study were to adopt a co-design approach to develop an OSP for patients who have completed a CBT-PMP and to conduct a feasibility pilot randomised control trial of the OSP to investigate uptake, user satisfaction and clinical outcomes.

Method

Focus groups were held with CBT-PMP patients and staff. The data collected was analysed using basic content analysis and separate emerging themes were developed for the patient and staff focus groups. An OSP was developed based on the results. The first four CBT-PMP groups of 2017 were randomised to intervention and control groups. The intervention group received the OSP for 8 weeks between the end of the CBT-PMP and the routine two-month review. The control group received usual care. Routine CBT-PMP physical, functional and psychological outcomes were collected at both time points. User uptake and engagement was monitored on the OSP, while a satisfaction questionnaire was distributed to users to determine the usability and utility of the OSP.

Results

Thirteen participants attended four focus groups. Six emergent themes were identified. Patients and staff agreed that an OSP would be a useful resource and provided suggestions for OSP content and structure. Uptake of the OSP was high (91.67%), while users reported high

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levels of satisfaction. Promising trends were seen across outcome measures, with medium effect sizes observed for positive changes in physical activity, disability and anxiety.

Conclusions

Uptake and satisfaction were high in an OSP that was developed by engaging with service users (patients) and service providers (CBT-PMP staff). The OSP had promising effects on clinical outcomes. A full-scale randomised control trial is required to determine the true impact of the OSP.

Research Presentation: Orthopaedics

15:30hrs Friday 9th November

Venue: Ballincar

Chair: Damian Rice

OP1 Which Hip Fracture Patients are suitable for a Fast-Track Rehabilitation Discharge Pathway?

Ms. Michelle Fitzgerald¹, Ms. Blaithin Quinn¹, Mr. Brendan O Daly¹, Mr. John Quinlan¹, Dr. Paul McElwaine², Dr. Tara Coughlan¹
1. Tallaght University Hospital

Objectives

Hip fracture (HF) discharge pathways need to be optimised for Irish hospitals to cope with increasing HF incidence. International guidelines recommend, for certain patient cohorts, early supported discharge home with fast-track rehabilitation in

community/outpatient settings. A previous pilot study in Tallaght University Hospital demonstrated that median HF length of stay (21 days) was higher than the national median LOS (12 days), and that 25% of HF patients would meet the criteria for a fast-track discharge pathway encompassing community/outpatient physiotherapy, should such a pathway be introduced. A HF fast-track rehabilitation discharge pathway (FT Pathway) encompassing rapid access to community or outpatient physiotherapy, was introduced for a 6-month pilot period. The purpose of this prospective observational cohort study was to identify:

- Characteristics of HF patients deemed eligible by the multidisciplinary team for the fast-track discharge pathway.
- Characteristics of HF patients who achieved discharge home direct from the acute hospital.

Method

Fifty-nine HF patients admitted consecutively to Tallaght university Hospital were included. HF patients admitted to the elective orthopaedic ward, or patients that were still an inpatient at the finish date of the pilot period, were not included. Measures collected included demographics, delay to theatre, ward, discharge location, eligibility for FT Pathway and function (New Mobility Score (NMS), Cumulated Ambulatory Score (CAS)) at baseline, first postoperative day and discharge). All patients received routine physiotherapy. Multidisciplinary staff deemed patient eligibility for the FT Pathway on daily ward rounds. Data were analysed using SPSS V22.

Results

Fifty-nine HF patients (mean age 77 years, range 44-94 years) were included in the study. Thirty-seven percent (n=22) of patients were deemed

eligible for the FT Pathway. The mean postoperative day that eligibility was decided upon was day 3 (range 1-14 days). The mean postoperative day that patients were deemed suitable for discharge on the FT Pathway was day 7 (range 1-24days), and actually discharged home was day 15 (range 1-56 days). Patients on the FT pathway were significantly younger (mean difference 8.6 years, $p=0.005$), achieved CAS 6 significantly faster (mean 4 days versus 13 days postoperatively, $p=0.012$) and mobilised successfully with physiotherapist day one postoperatively ($p=0.007$). They also had significantly higher baseline NMS ($p=0.001$) and day one CAS scores ($p=0.001$) than the patients that were not deemed suitable for the FT Pathway. Patients who achieved discharge home direct from the acute hospital (via both the FT Pathway and routine pathway) were significantly younger ($p=0.006$), had a higher baseline NMS ($p=0.002$) and were eligible for the FT Pathway ($p=0.001$). None of the 8 patients on a non-orthopaedic ward were discharged directly home compared to 40% ($n=23$) of patients from the trauma orthopaedic ward ($p=0.007$).

Conclusions

Conclusion:Thirty-seven percent of HF patients were deemed suitable for the FT Pathway. Age, baseline NMS, day one function, and time to achieving CAS score of 6 may be useful clinical indicators in deciding patient eligibility for a FT rehabilitation discharge pathway. There appears to be a delay in actually discharging patients home once they meet the FT discharge criteria. Interpretation of these preliminary results is limited due to low sample size, and further evaluation of factors involved in FT Pathway eligibility, discharge planning and LOS

is warranted.

OP2 Management of stable osteoporotic vertebral fractures in acute Irish hospitals.

Ms. Elaine Hughes¹, Mr. Mark McGowan¹, Ms. Claire Gallagher¹

1. University College Dublin

Objectives

Osteoporotic fractures, particularly those of the vertebra, are associated with increased mortality and significant morbidity, resulting in high healthcare and socioeconomic costs. Despite the prevalence and consequences of osteoporotic vertebral fractures (OVF's), high quality research is lacking with no clear consensus on best evidence clinical pathways (Ferreira, 2015), and optimal treatment remains controversial (Slavici et al, 2017). The objective of this study is to explore the orthopaedic and physiotherapy management of OVF patients and identify variations in practice in acute Irish hospitals.

Method

A cross sectional survey was designed to capture the acute inpatient management of OVF's by orthopaedic doctors and physiotherapists (PTs) in Irish hospitals. Two forms of the survey were designed and distributed. One to specialist registrars (SpRs) at a national training day and the other online to inpatient orthopaedic physiotherapists working within the sixteen hospitals contributing to the Irish Hip Fracture Database. Common themes formed the basis of both surveys including demographics, inpatient treatment and management on discharge of OVF patients. All survey data were entered onto SPSS and analysed using descriptive statistics.

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Results

An overall response rate of 86% (47/55) was achieved for orthopaedic SpRs across 15 hospital sites, with 42 PTs surveys received from 100% (16/16) of the acute Irish trauma hospitals targeted. SpRs and PTs reported no written guidance or protocol for the management of OVFs in their hospital (71% and 57%, respectively). 39% of PTs reported there was no fracture liaison service in their hospital with a further 33% unsure. Wide variance in referral patterns to multi-disciplinary team (MDT) members exists, despite 78.7% of SpRs reporting patients should have a comprehensive inpatient MDT assessment. Stable OVF patients were prescribed bracing (SpRs 79%; PTs 95%) with SpRs reporting pain management (85%) and PTs reporting concerns about fracture stability (85%) as the main indication. Stable OVF inpatients were given an exercise programme for the ward (73%) and/or for home (78%) according to PTs with general mobility exercise the most commonly prescribed. 68% of SpRs reported not prescribing anti-resorptive medications during inpatient phase despite 87.3% believing osteoporosis medications should start prior to discharge from hospital. 68.1% believe bone health assessment and fracture risk management should not be coordinated and delivered by orthopaedic doctors. Interestingly, 51% of PTs found OVF's more challenging to manage than other acute fractures, with 59% reporting inadequate literature to support their clinical decision making.

Conclusions

In acute Irish hospitals, orthopaedic and physiotherapy management of OVFs is not standardised, reflecting the lack of international

consensus in clinical guidelines. Results also indicate the need for enhancement of fracture liaison services. Further research, evidence-informed standards of care with development and implementation of clinical guidelines for OVF management are required in order to enhance the overall outcome for this cohort of patients.

OP3 Irish Hip Fracture Database 2016 Results - A new Focus on Function

Ms. Michelle Fitzgerald¹, Ms. Edel Callanan², Prof. Catherine Blake³, Ms. Louise Brent⁴, Mr. Conor Hurson⁵, Dr. Emer Ahern⁶, Dr. Cairiona Cunningham³

1. Tallaght University Hospital, 2. Merlin Park University Hospital, 3. University college dublin, 4. National Office of Clinical Audit, 5. St Vincent's University Hospital, 6. St Luke's General Hospital

Objectives

Functional outcomes post hip fracture are poor, despite recent advances in hip fracture care standards. Rehabilitation remains a central challenge in trauma services. A key factor in improving hip fracture outcome is the implementation of national hip fracture databases, which allow health services to monitor care standards. New rehabilitation focussed data-fields were added to the Irish Hip Fracture Database (IHFD) on 1st January 2016 with the aim of providing information regarding hip fracture physiotherapy service provision and functional outcome across all acute trauma orthopaedic units in Ireland.

Method

The IHFD is a clinically-led, national web based audit of hip fracture casemix, care and

Research Presentations

outcomes. The IHFD has been recording data since 2012, with new rehabilitation-focused data-fields added on 1st January 2016. Data is collected through the hospital inpatient enquiry (HIPE) portal in collaboration with the Healthcare Pricing Office (HPO). The National Office of Clinical Audit (NOCA) provides operation governance for the IHFD. The new rehabilitation data-fields include: · Day one postoperative physiotherapy assessment: Yes/No · Day one postoperative mobilisation: Yes/No · Pre-fracture function: New Mobility Score (NMS) · Function on first postoperative day and acute hospital discharge: Cumulated Ambulatory Score (CAS)

Results

The 2016 IHFD report comprises data from 3,629 hip fracture patients in Ireland from all 16 acute trauma orthopaedic units. The New Mobility Score was captured for 93% (n=2383) of patients, with 48% of having high pre-fracture function (NMS ≥ 7). 78% of patients (n=2325) were assessed on the day of or day after surgery by a physiotherapist, with 71% mobilised by a physiotherapist. CAS was captured for 50% (n=1829) of patients on the first postoperative day and 36% (n=1307) of patients on acute hospital discharge. Of those patients, 92% required assistance in their basic mobility (CAS ≤ 3) on the first postoperative day, with 18% achieving independence (CAS=6) on discharge

Conclusions

This new data enables profiling of both physiotherapy service provision and functional outcome post hip fracture in Ireland. With continued commitment to data collection quality and extension of the IHFD data collection time-frames beyond the acute

hospital setting, it will be possible to identify barriers to rehabilitation and evaluate the impact of organisations' improvements in hip fracture care delivery on functional outcome.

Research Presentation: Stroke

11:50hrs Saturday 10th
November

Venue: Knocknarea Suite

Chair: Siobhán Ní Sheoinín

ST1 Determining the feasibility of implementing Family-Mediated Exercise Intervention (FAME) in a stroke rehabilitation ward.

Ms. Orlaith Doherty¹, Ms. Gillian Harte¹, Ms. Antoinette Curley¹

1. Tallaght University Hospital

Objectives

Family mediated exercise after stroke (FAME) is an exercise programme protocol that has been shown to significantly increase functional activity levels of stroke patients and is an example of a means of increasing patient time in rehabilitative tasks whilst being mindful of available resources (Galvin et al., 2011). The FAME programme consisted of weekly formal physiotherapist meetings with acute stroke patient family members. This was in combination with routine ward based physiotherapy.

- To Determine the Feasibility of Implementing Family-Mediated Exercise therapy (FAME) to patients in a stroke rehabilitation ward.

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- To determine patient compliance
- To determine physiotherapist compliance
- To gain patient and family feedback

Method

- The FAME programme was implemented in a stroke rehabilitation ward over a 4 month period (January- May 2018)
- Inclusion criteria:
 - Patients who would benefit from an exercise programme
 - Patients that required assistance to carry out an exercise programme
 - Patient family willing to participate
 - All patients who fitted this inclusion criteria during the 4 month time period were invited to take part
 - In addition to usual care, a key family member was nominated to carry out an exercise programme prescribed by the treating physiotherapist. Weekly FAME review meetings were set to monitor participation and progress.
- Data collected included:
 - Patient and family compliance records from exercise diaries
 - Therapist compliance, collected through retrospective analysis of physiotherapy records
 - Patient and family satisfaction questionnaire on discharge, investigating:
 - Usefulness of FAME
 - Intention to continue with FAME after discharge
 - Inviting suggestions and feedback
 - Rating satisfaction with FAME from 1-5, with 5 indicating highest satisfaction
 - Data was analysed with Microsoft excel using descriptive statistics.

Results

Eighteen patients participated in FAME over a 4 month period. Mean length of stay of FAME

patients was 5.5 weeks (Range 2-11 weeks, SD = 3.17).

Patient Compliance:

- Seventeen patients (94%) demonstrated some level of compliance as measured by exercise diaries
- Participants completed the exercise programme on average 17.41 +/- 8.52 (63%) out of a possible 35.12 +/- 54.97 days.

Therapist Compliance:

- Mean therapist compliance with weekly review of exercise programmes was 68%
- At times the treating physiotherapists deemed it unnecessary to perform weekly FAME review meetings secondary to little change required to the patient's prescribed exercise programme, opting for a 2 week FAME review meeting instead.
- Other lesser factors influencing therapist compliance were reduced staffing and reduced family compliance with programme.

Patient and family feedback:

Of the 18 participants:

- Seventeen family members completed questionnaires. 16 found it helpful and all planned to continue post-discharge. 15 were either satisfied or very satisfied with FAME. 2 were neither satisfied nor dissatisfied
- Twelve patients completed questionnaires. All found it helpful and planned to continue post-discharge. 11 were either satisfied or very satisfied with FAME. 1 was neither satisfied nor dissatisfied

Conclusions

Overall this service development project demonstrated that the FAME programme is a feasible means of increasing the time stroke patients spend on rehabilitative tasks while being mindful of available resources on a stroke rehabilitation ward. Positive feedback was

given by patients and their families regarding the helpfulness of FAME in patient recovery. Future research should seek to explore factors influencing compliance with FAME.

References:

Galvin, R., Cusack, T., O'Grady, E., Murphy, T.B., Stokes, E. (2011), 'Family-Mediated Exercise Intervention (FAME)', *Stroke*, 42:681-686.

Ethical Approval:

A waiver of ethical approval was granted from SJH/AMNCH research ethics committee..

ST2 Seven-Day Physiotherapy Stroke Assessment Service in St James' Hospital: A Review

Ms. Helen Kavanagh¹, Ms. Ruth Madigan¹, Ms. Yasmin Clynes¹, Ms. Karen Nash¹, Mr. Shane O'Farrelly¹, Ms. Niamh Murphy¹
1. St James's Hospital

Objectives

An innovative quality improvement project at St James's Hospital piloted the first seven day Physiotherapy stroke assessment service in Ireland. The service was rolled out on a permanent basis from October 2016. The aim of the service is that all acute Stroke patients receive an initial physiotherapy assessment within 24-48 hours of admission, in line with both National and International guideline recommendations. The aim of this review was to establish ongoing efficiency and profiling of the service.

Method

A 12-month review of the service was completed using data which had been prospectively entered on an excel database by staff. A 2-month repeat audit of time from admission to assessment was also completed to ascertain compliance with the main aim of the service. This data was taken from patient's

electronic patient record. Feedback was sought from physiotherapy staff and inter-disciplinary team (IDT) colleagues via questionnaire and survey monkey.

Results

At the time of review, there were 20 physiotherapists rostered on the service, covering all weekends including bank holidays. Since October 2016, 72 patients with acute stroke have been assessed by the weekend service, averaging 1.06 patients per weekend. 86% (n=62) of patients were assessed in the stroke unit. 9.7% (n=7) were discharged from physiotherapy on the day of assessment. Median time from admission to assessment reduced from 25.9 hours in 2016, to 19.7 hours in 2017. 71% of patients (n=27) were assessed within 24 hours of admission, an improvement on 2016's compliance rate of 40%. 78% of staff chose payment over the option of time in lieu. From the survey of physiotherapists (n=12), felt the service was of benefit to patients, and 100% felt they received all the training and necessary equipment required for participation in the service. 67% of physiotherapists were participating in another weekend service (i.e respiratory/orthopaedics). From the survey of the IDT (n=6), 100% felt that the service was of benefit to patients.

Conclusions

The seven day stroke assessment service has been received well by staff and has improved guideline compliance with early physiotherapy assessment for patients with acute stroke. Further work in 2018 will focus on combining the stroke and orthopaedic weekend rotas and formalising policies for issues arising such as bank holidays and staff turnover.

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ST3 The effects of therapeutic handling on scapular muscle activity and quality of movement in chronic stroke during reaching: A case series

Ms. Shelby Brooks¹, Ms. Justina Matar¹, Ms. Jane Mckean¹, Dr. Ulrik Mccarthy Persson¹, Dr. Cliona O'Sullivan¹, Dr. Giacomo Severini², Dr. Olive Lennon¹

1. University College Dublin

Objectives

Multiple upper limb handling techniques are utilised in clinical settings to optimise quality of movement post-stroke. The impact of upper limb stroke impairment and functional level on an individual's response to upper limb handling techniques is lacking in evidence. The aim of this case series is to investigate the effect of manual handling techniques of guided movement with or without optimised posture and a muscle facilitation technique on scapular muscle activity and quality of movement during reach activity. The main objectives of this study are to identify whether each condition during reach and point activity: 1) minimizes excessive elevation and abduction compensatory movements and 2) optimizes muscle activity by increasing lower trapezius stability activity and reducing excessive upper trapezius and deltoid activity.

Method

Five participants with chronic stroke were recruited through the voluntary stroke scheme in the greater Dublin area for this case series. Inclusion criteria were adults with capacity to give informed consent, presence of a stroke related upper limb disability and not in receipt of ongoing rehabilitation. The Fugl-Meyer Assessment-Upper Extremity (FMA-UE) identified impairment category. The protocol tested five different reach and point conditions:

self-selected posture with independent reach, self-selected posture with manual guidance, optimized posture with independent reach, optimized posture with manual guidance and optimized posture with triceps facilitation. Each condition included three trials. EMG data, normalized to the control condition of self-selected posture with independent reach, were captured from six muscles (upper/middle/lower trapezius, middle deltoid, serratus anterior and triceps) to determine average muscle activity during each condition in comparison to their usual movement pattern. Quality of movement (angles of abduction and elevation of the shoulder girdle) was assessed using video recording of trials and analyzed using Dartfish kinematic software.

Results

4 males and 1 female with a mean age of 57 years participated. Three participants were categorised as having limited or poor capacity and 2 as having notable to full capacity by the FMA-UE. Abnormal abduction and elevation patterns were noted in the 4 participants without full capacity. Improvement in kinematics with associated EMG changes were noted consistently in the facilitation technique in those with poor and limited capacity but were not consistently replicated in the other conditions. Mean changes of 15% abduction and 0.16m shoulder elevation, accompanied by average reductions of 28% and 36% in upper trapezius and deltoid activity were noted. Only one individual (with limited capacity) demonstrated increased scapular stability activity in lower trapezius in handling conditions of optimal posture and manual guidance (12%) and facilitation (11%). Increased stability was

not noted in those with less or greater capacity in any handling condition.

Conclusions

These results indicate that therapeutic handling techniques have benefit in improving compensatory upper limb movement patterns, notably in individuals with lower functional capacity. Benefit for improved scapular stability activity through handling remains inconclusive and may be dependent on impairment category. Further research is required to determine immediate and longer-term effects of manual handling in the chronic stroke population.

Research Presentation: Musculoskeletal 11:50hrs Saturday 10th November

Venue: Benbulbin 3

Chair: Dr Edwenia O'Malley

MS1 To investigate the feasibility of using a BandCizer™ device to evaluate adherence to a home exercise programme for adults with shoulder pain.

Ms. Christina O'Connor¹, Dr. Karen McCreesh¹
1. Department of Allied Health, University of Limerick

Objectives

Exercise is known to be one of the most effective interventions for shoulder pain. The limited methods available to accurately measure adherence to HEPs constitute a major challenge for clinicians. The BandCizer™ is a

novel device that attaches to a resistance band and measures adherence using stretch-sensor technology. It has been shown to be a valid and reliable tool for measuring exercise quality (i.e. time under-tension (TUT)) and quantity (i.e. number of repetitions). The main objective of this study was to evaluate adherence to an exercise intervention measuring number of repetitions and TUT using a BandCizer™ device and assess its impact on pain and disability.

Method

Adults with shoulder pain (≥6 weeks), not currently undergoing any treatment, with no neurological or rheumatologic disorders, were eligible for inclusion. Two experienced physiotherapists (>10 years) conducted screening and assessments. All participants provided written informed consent. Participants were prescribed a 6-week exercise programme and instructions were given to complete exercises daily, doing 10 repetitions/set with a TUT of 8s per repetition. Participants were asked to record the number of repetitions and pain (Numerical Rating Scale (NRS)) before and after exercise within a daily exercise diary. Follow-up appointments were scheduled for 2, 4 and 6-weeks. The device only collected data during the initial 2-week period and was collected at the first follow-up appointment. Participants also completed the NRS for pain and the Shoulder Pain and Disability Index (SPADI) questionnaires at baseline and 6-weeks. The minimal detectable change for the NRS was set at 2 points and 18 points for the SPADI in line with previous studies.

Results

11 participant data sets were included in final analysis. Overall there was a 52% adherence to

Research Presentations

the intervention, and inversely the TUT prescribed. The adherence to repetitions was far superior at 76%, which was comparable to self-reported adherence levels i.e. 79%. 46% of the participants reported changes in their pain and disability scores that exceeded the MDC threshold.

Conclusions

The BandCizer™ device was effective in objectively quantifying adherence to TUT and repetitions completed. Despite an overall low adherence, the intervention still produced significant changes in pain and disability. As this was a feasibility study, the sample size was small limiting the generalizability of these findings. However, these findings do lend support for the need for further research in this field to help identify what specific parameters of exercise dosage are most important in enhancing treatment efficacy within this population.

MS2 Surgeons and Patients Report Different Reasons for Surgery; Examination of an Arthroscopic Partial Meniscectomy Cohort.

Mr. Nathan Cardy¹, Dr. Jonas Thorlund², Dr. Fiona Wilson¹

1. Trinity College Dublin, 2. University of Southern Denmark

Objectives

The use of Arthroscopic Partial Meniscectomy (APM) to manage meniscus tears of the knee has recently been questioned, particularly in patients with degenerative or osteoarthritic changes in the knee. Selection of patients for APM is often based on poor resolution with conservative management, or the presence of

mechanical symptoms such as catching / locking / giving way of the knee. The current study aimed to compare reasons for APM from both patients' and surgeons' perspectives.

Method

The Trinity Meniscus Study (TRIMS) is an observational cohort study, which examined objective functional and self-reported outcome in patients undergoing APM at two Dublin teaching hospitals. Prior to surgery, patients responded to a single item open-ended question: "Reason for surgery". At time of surgery, the operating surgeon completed a data collection form which included the tick box question: "Reason for surgery: Persisting Pain / Mechanical Symptoms / Failed Conservative Treatment / Other (please specify)". Responses from patients were coded and compared to the responses given by surgeons. All responses are reported as percentages of the total cohort (n=43) for which that reason was given.

Results

Surgeons and patients both reported a combination of reasons for surgery, with more than one reason for a number of patients in the cohort. Surgeons identified 'pain' as the most frequent reason for surgery (84% of patients), 'mechanical symptoms' were selected as a reason for 30% of patients, and 7% (N=3) of patients were classified as 'other' ("traumatic injury, loose body, swelling"). No patients were classified as 'failed conservative treatment' at time of surgery. Patient-reported reasons for surgery differed from reasons given by surgeons. Patient responses were coded according to the same three headings; pain (35%), mechanical symptoms (7%), failed conservative management (2%), and the additional headings of functional / personal

goals (30%), anatomical diagnosis (33%) and other (2%). Functional / Personal goals included responses such as “make more comfortable day to day life” and “want to continue playing sport”. Anatomical diagnosis was used to classify responses such as “cartilage tear” and “removal of loose cartilage pieces”.

Conclusions

There were large differences in reason reported for surgery between surgeons and patients. Some of these differences may be due to the close-ended question offered to surgeons, although only 7% of patients were classified as “Other”. Patients reporting personal / functional goals may reflect their hopes for outcome of surgery rather than reason for needing the surgery. Although direct comparison of responses is limited, the large difference in reported reasons shows that surgeons have a very different perspective on surgical indication to patients in this cohort. Implications of these findings are that there is a lack of shared ownership / understanding surrounding the selection of APM as a treatment option for patients in this cohort and patients may not understand why their surgeon is suggesting surgical treatment. Further qualitative and quantitative research is needed to further investigate these findings. This study formed part of the Trinity Meniscus Study (TRIMS) which was funded by a Trinity College Dublin PhD stipend.

MS3 “Smarter Working”: Patient Outcomes from a Multisite Integrated Care Pathway for Conservative Management of Carpometacarpal Joint Osteoarthritis

Ms. Sarah O'Driscoll¹, Ms. Paula Minchin¹, Ms. Maria McGrath¹, Ms. Rachel Burke², Ms.

Yvonne Codd², Ms. Orla Harty², Prof. David Kane^{1,2}, Dr. Ronan Mullan^{1,2}, Dr. Diana Gheta³

1. Rheumatology Department, Tallaght University Hospital, 2. Rheumatology Department, Naas General Hospital,

Objectives

BACKGROUND: Tallaght University Hospital and Naas Hospital share rheumatology medical teams therefore their occupational therapy and physiotherapy services endeavored to adopt a tailored integrated care pathway (ICP) in both sites to enhance collaborative working and deliver equal service provision for patients with carpometacarpal (CMC) joint osteoarthritis (OA). **OBJECTIVES OF THE INITIATIVE:**

- To evaluate patient outcomes on an ICP for CMC joint OA.
- To determine if waiting times impacted on outcomes.

Method

Patients treated on the ICP for CMC joint OA within a 12 month period (1st April 2017 to 31st March 2018) were included.

The Disability of Arm, Shoulder & Hand (DASH) self-report questionnaire was employed as an outcome measure, to gain insight into functional limitations and symptoms. This was assessed at their initial appointment and then re assessed at their final therapy session.

- A patient information leaflet was posted out with the initial appointment letter.
- A feature of the pathway was attendance at a two hour Hand OA/joint protection group co-facilitated by hospital and community OTs.
- Patients attended individual OT &PT appointments as required.

Results

Research Presentations

A total of 63 patients were identified as being eligible for the pathway and commenced treatment. At the end of the 12 month period, 25 patients had completed the pathway and were discharged (see below). Of the remaining 38 patients, 13 are still in active treatment, 12 were discharged due to non-attendance, 7 had incomplete outcome measures, 3 were referred to other services and 3 self-discharged.

Of the 25 patients who completed the pathway n=23 (92%) were female and n=2 (8%) were male, with an average age of 61.72 (range 32-79). Fifteen (60%) had waited less than 3 months for their initial appointment, and n= 10 (40%) had waited more than 3 months. The maximum wait was just under 6 months.

DASH scores had improved for 72% of patients (n=18), with 10 (56%) of those achieving a minimal clinically important difference (MCID-10.83 points). One person remained unchanged and n=6 (24%) had reported disimprovement, with just one of those displaying an MCID.

Review of patients' waiting times suggests that final DASH outcomes were similar regardless of time waiting. Of those who had waited less than 3 months, 73% (n=11) had improved, with 55% (n=6) displaying an MCID. Of those who waited in excess of 3 months, 70% (n=7) had improved, with 57% (n=4) achieving an MCID. Twenty-three (92%) patients were discharged from rheumatology services having fully completed the pathway, while n=2 (8%) were discharged back the Rheumatology Team for CMC joint injection.

Conclusions

This ICP has provided an efficient and effective template for the management of this chronic

condition with favorable outcomes in line with MCID. The pathway results were comparable between those groups seen within and outside of the three month target. This learning point is relevant in clinical practice to justify allocation of resources to support patient related outcome measures.

Future Research: A sizeable number of patients did not complete the pathway. Future service improvements should seek to address this retention difficulty. Further Research On This Pathway Should incorporate focus on patients' self-efficacy and satisfaction levels.

Ethical Approval: This initiative was exempt from ethics according to organizational research ethics committee policy in both TUH and NGH.

Acknowledgements: Eimear Flood,
Occupational Therapist Carol Rafferty,
Occupational Therapist

Research Presentation: International Health 11:50hrs Saturday 10th November

Venue: Ballincar

Chair: Michelle Fitzgerald

IH1 A decade of perceptions: international health links, benefits and impacts

Mr. David Kennedy¹, Mr. Stuart Garrett¹
1. St James's Hospital

Objectives

Overseas volunteering has been described as 'a great win-win' for individuals and health services. While the UK government has

recognised the value of the National Health Service (NHS) staff participating in international health projects (IHPs), such work is undervalued by the Health Service Executive (HSE) in Ireland. NHS staff report that IHPs provide fresh perspectives and new skills, which have benefits to the health system and improve quality of care (Cochrane et al., 2014). The current study aimed to explore the perceptions of HSE health and social care professionals (HSCPs) towards the impact of IHPs on career development, clinical and interpersonal skills.

Method

A purposeful anonymous sample of 71 HSCPs with IHP experience was selected, including 58 chartered physiotherapists. A 10-item survey was developed using an evidence-based NHS toolkit (Longstaff, 2016) and sent via email to participants. The survey comprised free text boxes and 10-point Likert scales on topics relating to personal development, global health, service improvement, career trajectories and support from employers. The data collected was analysed using basic content analysis and emerging themes were developed.

Results

The preliminary survey response rate (after 14 days) was 21.13% (n=15). Respondents strongly felt that IHPs benefited their careers (8.3/10). All participants were exposed to international health issues. Participants highlighted that key professional and personal skills were developed during IHPs. These skills included communication, team work, leadership, resourcefulness, clinical knowledge and confidence. Eighty percent of participants developed ideas for service improvement in Ireland from their IHP experience. Participants were divided in relation to feeling supported or

unsupported by their employers (5.8/10), but 73% did not feel that their employer valued their IHP experience. Participants highlighted the need for acknowledgement, support for annual leave and the creation of continuous professional development (CPD) frameworks.

Conclusions

Irish physiotherapists and HSCPs have benefited from IHPs from a personal and professional perspective by developing several key skills and competencies. These skills and competencies have a direct impact on service provision and therefore patients within the Irish healthcare system. However, there is a clear discrepancy between the benefit felt by HSCPs and the value placed on IHPs by employers and the HSE. The impact of IHPs is clear and should be acknowledged. Formal supports are required within the HSE to empower HSCPs to engage in overseas work.

IH2 A Systematic Review of Physical Rehabilitation Interventions for Stroke in Low and Lower-Middle Income Countries

Ms. Muireann Dee¹, Dr. Olive Lennon¹, Dr. Cliona O'Sullivan¹

1. University College Dublin

Objectives

Stroke incidence is increasing in lower-income countries. Post-stroke disability disproportionately affects those with lower incomes, with negative impacts on function and quality of life (Lloyd-Sherlock, 2010). Resource intensive models of stroke rehabilitation from high income countries may not be affordable to deliver in low resource settings. This systematic review aimed to evaluate the efficacy of current physical rehabilitation interventions for stroke

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survivors in low and lower-middle income countries.

Method

As this was a systematic review of previously published literature, no ethical approval was required. Five databases were comprehensively searched in April 2017. Randomised controlled trials, clinical controlled trials and cohort studies were included where physical rehabilitation interventions were delivered to adults with stroke in low or lower-middle income countries. All potential studies were independently screened for inclusion by two researchers, who also rated the quality of included studies using the Effective Public Health Practice Project Tool. A best evidence synthesis approach was applied to results in upper limb, lower limb/gait and other categories.

Results

Sixty-two studies (2,115 participants) were included. Interventions described addressed the upper limb (n=26), lower limb (n=22) and other (n=14). Forty-four of the included trials were undertaken in India. The quality of the studies was deemed to be strong in seven studies, moderate in 16 studies and weak in 39 studies. No study was rated as strong in all quality assessment components, primarily due to inadequate randomisation procedures, utilisation of convenience samples, and lack of assessor blinding. The majority of the studies utilised functional and activity-based outcome measures (n=53). The second most common domain of outcome measurement used was impairments of body structure or function e.g. tone or range of motion assessment (n=35). Three studies utilized participation outcomes measures. Results demonstrate that additional

physical rehabilitation interventions in combination with usual care can improve functional, gait and balance outcomes for stroke survivors in developing countries. Best evidence synthesis provides level I (b) evidence supporting both constraint induced movement therapy and mirror therapy to improve upper limb functional outcomes. Level I (b) evidence supports the use of lower limb motor imagery as part of a multimodal intervention, to improve gait parameters. Level II (b) evidence supports the use of sit-to stand training to improve balance outcomes after a stroke. There was conflicting evidence for taping in the management of shoulder subluxation and for functional electrical stimulation to treat foot drop.

Conclusions

This review demonstrates evidence for low cost physical rehabilitation interventions for stroke in low and lower-middle income countries, improving outcomes such as functional ability, walking capacity and balance. Participation and quality of life measures were not routinely used in studies included in this review. Further primary data collection and adequately powered, controlled trials of a higher standard are required, particularly in areas identified as most relevant to lower-resourced areas e.g. tele-rehabilitation, self-rehabilitation and community-based rehabilitation (Yan et al., 2016). Lloyd-Sherlock P. (2010) Stroke in Developing Countries: Epidemiology, Impact and Policy Implications. Development Policy Review, 28(6):693-709. Yan LL., Li C., Chen J., Miranda JJ., Luo R., Bettger, J., Zhu, Y., Feigin, V., O'Donnell, M., Zhao, D. & Wu, Y (2016) Prevention, management, and rehabilitation of stroke in low- and middle-income countries.

IH3 Outcomes from Routines-Based Interviews with Ugandan Families

Ms. Allison Caldbeck¹, Ms. Orla Coleman¹, Ms. Leah Clegg¹, Ms. Andrea Furlong¹, Dr. Cliona O'Sullivan¹

1. University College Dublin School of Public Health, Physiotherapy and Population Science

Objectives

The objective of this study is to describe the outcomes of Routines-based interviews (RBIs) with families of children with neurological disability living in urban Uganda.

Method

RBIs are semi-structured interviews used as part of early intervention approaches for children with disabilities. The interviews focus on daily routines of the family in order to form family-oriented goals for the children. Research has shown that the RBI may produce better, more functional outcomes than the traditional approach to early intervention. These functional outcomes can be more meaningful for families and can yield greater progress. However, there is little or no evidence that investigates the use of RBIs in developing countries despite the high prevalence of childhood disability in these areas. This is a qualitative study, using semi structured interviews adopting the RBI protocol. Families of children with neurological disability attending a healthcare centre in urban Uganda were recruited using a sample of convenience. RBIs were carried out by two physiotherapists. Thematic analysis was used to analyse the information and form themes.

Results

The following themes emerged from the RBIs: communication, participation, caregiver factors, activities of daily living, referral reasons, main concerns and family-oriented outcomes. Many similarities between interviews were apparent, with families reporting similar concerns and difficulties experienced in daily routines. The RBIs formed a number of family-selected outcomes to inform goals for the family to work on with the intervention team. Findings correlated strongly results from similar studies carried out in developed countries. However, environmental factors specific to a low-income setting, such as accommodation and sanitation, had a significant contribution to results found.

Conclusions

It was found that the Ugandan families engaged well with the RBI process and the questions translated well to this setting. The participants provided a rich description of their daily routines and independently prioritised their main concerns in order to shape their future treatment options. However, there is a need for further research in this area to analyse whether or not implementing RBIs is the most efficient use of resources.

IH4 A Description of Ugandan Caregivers' Knowledge of Developmental Milestones, Factors that Influence this Knowledge and Associated Child Growth Outcomes: A Pilot Study

Ms. Kate Donovan¹, Ms. Laura Madden¹, Ms. Sophie Melvin¹, Dr. Cliona O'Sullivan¹

1. University College Dublin

Research Presentations

Objectives

A) Describe caregiver knowledge of developmental milestones and appropriate stimulation (e.g. play, shared reading)B) Analyse sociodemographic factors affecting caregiver knowledge of developmental milestones (e.g. age, education)C) Assess the correlation between caregiver knowledge of child development and WHO Child Growth StandardsD) Assess the correlation between caregiver knowledge of child development and caregiver recognition of malnutrition.

Method

Cross sectional study design, this study recruited 20 participants presenting for rehabilitation for their child. The caregiver knowledge of child development index was administered via interview, sociodemographic details about the caregivers were collected and dietetics researchers administered a questionnaire to assess caregivers' ability to recognise malnutrition. Anthropometric measurements were recorded from the children and compared to World Health Organisation standardised growth charts. Each child was assigned a z-score from these growth charts, describing how many standard deviations they were from the median. Children two or more standard deviations from the median were deemed to be malnourished.

Results

As a result of the small sample size recruited, this study was underpowered and the results were not statistically significant

Conclusions

No significant correlation was identified between sociodemographic factors and caregiver knowledge of child development.

There was no significant relationship between caregiver knowledge of child development and child growth outcomes or caregiver knowledge of child development and their ability to recognise malnutrition. Finally a new research question regarding the best mode of disseminating information to new mothers, and the potential to harness technology to this end is worth further exploration. This pilot study provides a robust framework upon which to build future research.

Research Presentation:
Cardiorespiratory
11:50hrs Saturday 10th
November

Venue: Bricklieve

CR1 The use of simulation training to provide on-call cardio-respiratory training to physiotherapists

Ms. Aoife McCarthy¹
1. University Hospital Galway

Objective

The benefits of simulation training in clinical care are documented internationally in the literature. Simulation training is widely used for to teach on-call cardio-respiratory skills in physiotherapy (Gough *et al* 2013). Our aim, was to utilise hi-fidelity simulation as a novel method of providing training to on-call respiratory physiotherapy training to qualified physiotherapists in Ireland. At present, on-call training for the physiotherapy department in University Hospital Galway is delivered through a combination of theory and skills based

session. Simulation training provides a platform for “real life” interactive clinical scenarios, more indicative of the on-call setting.

Methods

Qualified physiotherapists on the on-call rota participated in the training. At random, they were asked to assess and treat interactive mannequin based on real patient scenarios; 2 adult and 1 paediatric on-call clinical scenarios. The training session took place in the Irish Centre for Applied Patient Safety and Simulations (ICAPSS). The session will be facilitated by senior physiotherapists in UHG who provide on-call training, members of the ICAPSS facility and senior inter-disciplinary professionals commonly involved in on-call situations. The interactive mannequins are “live” and can be manipulated to change vital signs such as heart rate and oxygen saturations. They can also be programmed to present with added sounds of auscultation. Physiological variables are subject to change based on the physiotherapy intervention – i.e. the patient can show signs of improvement or deterioration. Live video link of the scenario will be provided to other participants. Feedback and a debriefing sessions will be delivered in a safe environment, co-facilitated by a senior clinician within the MDT. This will provide a safe environment for reflective feedback through video analysis and peer support.

Evaluation

Pre – training the physiotherapy department in UHG were asked to fill out the ACPRC on-call questionnaire, to identify common themes for training and to be incorporate in the simulation training. Post training, physiotherapists will fill out a standardised ICAPSS questionnaire and

satisfaction with simulation experience scale (SSES)

Results

100% of attendees reported the enjoyed the training, felt it was useful to address their training needs, improved skills and knowledge related to their job, and would recommended it to others.

Conclusion

Using the Simulation room offered a practical opportunity to develop and improve skills whilst integrated with members of the MDT during delivery of physiotherapy in the simulated clinical scenarios. The results demonstrate that using high fidelity simulation training provided a more effective and realistic method of continual professional development in relation to on-call skills within physiotherapy. This method could be replicated by other hospitals and physiotherapy departments around Ireland.

Blackstock F, Jull G (2007) High-fidelity patient simulation in physiotherapy Education. Australian Journal of Physiotherapy 2007 Vol. 53 (1) , 3-5

Gough S, Yohannes AM, Thomas C, Sixsmith J. (2013) Simulation-based education (SBE) within postgraduate emergency on-call physiotherapy in the United Kingdom. Nurse Education Today. 33(8):778-84. doi: 10.1016/j.nedt.2012.03.015.

Research Presentations

CR2 "The NQT - 2 OF 3 APPROACH" - Identifying the need for RESPIRATORY REFERRAL among SEVERELY OBESE INDIVIDUALS

Ms. Emer O' Malley¹, Dr. Colin Dunlevy², Prof. Donal O' Shea²

1. Trinity College Dublin / St. Columcille's Hospital, Loughlinstown, 2. HSE, St. Columcille's Hospital, Loughlinstown

Objectives

Obesity hypoventilation syndrome (OHS) diagnosis requires a body mass index (BMI) of $>30\text{kg/m}^2$, and a daytime PaCO_2 without another cause for hypoventilation. The objective of this study was to identify predictive validity for OHS based on simple, non-laboratory, clinical tests.

Method

One hundred and nine patients who attended a national weight management service underwent a comprehensive multidisciplinary assessment including venous blood gases (VBG) and a transcutaneous measurement of carbon dioxide (TOSCA).

During post hoc analysis markers of respiratory, physical and mental health status were investigated. These 3 markers included; neck circumference (men $\geq 43.2\text{cm}$; women $\geq 40.6\text{cm}$), quality of life (QoL) (<7 numerical rating score (0-10)) and a timed up and go test (TUG) ($\leq 10\text{secs}$). If at least 2 of the markers were outside the reference range we categorised them as NQT (Neck, QoL, TUG) positive.

Association with transcutaneous and venous blood gases (or respiratory status) was assessed based on the categorisation of patients into the NQT positive or NQT negative group. Data was gathered using Microsoft Excel 2007 and statistical analysis was completed using the

student t-test. A significance value of <0.05 was set.

Results

The NQT positive group were; 75% male, 45.9 ± 12.3 years and $162.3 \pm 40.3\text{kg}$ versus 49% male, 41.9 ± 11.8 years and $135.1 \pm 20.2\text{kg}$ (N/A, $p < 0.09$, $p < 0.001$, respectively). On transcutaneous measurement of carbon dioxide and oxygen levels, poorer respiratory function was noted within the NQT positive group, TOSCA PaCO_2 mean \pm SD (n): 4.8 ± 0.6 (43) versus 5.2 ± 0.8 (65) $p = 0.01$ and TOSCA Oxygen saturation mean \pm SD (n): 97.6 ± 1.3 (43) versus 96.9 ± 1.7 (65), $p = 0.02$. This negative association was also consistent on analysis of the VBG measurements, PCO_2 mean \pm SD (n): 5.9 ± 0.9 (40) versus 6.4 ± 0.9 (56), $p = 0.01$, PO_2 mean \pm SD (n): 6.4 ± 3.9 (40) versus 5.7 ± 2.1 (56), $p = 0.31$, Base Excess mean \pm SD (n): 0.1 ± 2.9 (40) versus 1.4 ± 2.9 (56), $p = 0.01$, HCO_3^- (std) mean \pm SD (n): 23.6 ± 2.2 (40) versus 25.1 ± 2.3 (56), $p < 0.001$.

Conclusions

The NQT screening tool has predictive validity to identify those severely obese patients who are likely to require specialist respiratory referral to investigate OHS without blood laboratory tests. The NQT test may be particularly helpful in a primary care setting.

CR3 Pulmonary Rehabilitation in primary care and secondary care, does the setting impact on outcome?

Ms. Mairead Ward¹
1. HSE

Objectives

Pulmonary Rehabilitation (PR) is widely accepted as the cornerstone of COPD

management, and has been shown to improve exercise capacity, health related quality life and reduce breathlessness, fatigue and health-care utilization¹. To date PR in Ireland has generally been carried out in secondary care. Respiratory Integrated Care (RIC) physiotherapists have been employed through the COPD Clinical Care Programme to deliver PR in primary care. Objective: The main aim of this study was to retrospectively analyse patient's outcome after completing PR in the hospital setting and two different community settings.

Method

Method: Statistical analysis was carried out to compare baseline characteristics between the three groups and to analyse outcomes between the three groups. There were 16 patients in the hospital group and there were 19 patients in each of the community groups.

Results

Results: Retrospective analysis was carried out on the outcomes of patients in PR in the hospital setting and two community settings, one near the hospital and another setting 55km away. Baseline characteristics between the three groups were similar, mean age was 68, 67, 68 and gender $p=0.37$. There was no statistically significant difference between the three groups for mean clinically important difference (MCID) for the six minute walk test, the COPD Assessment Tool (CAT) or the anxiety subscore of the Hospital Anxiety and Depression Scale (HADS). The hospital group had a statistically significant improvement over one of the community groups as regards improvement in the MCID in the depression subscore of the HADS, $p=0.0226$ but not over the other community group $p=0.069$. Conclusion: Community based PR is feasible and achieves

similar improvements in outcome compared to PR in hospital settings as demonstrated in this retrospective analysis. The groups were very small, therefore I would view the results with caution, particularly the statistically significant difference for improvement in depression between the hospital group and one of the community groups. Feedback via patient experience questionnaires favoured the community setting as having easier access facilities. References: 1. McCarthy, B, Casey, D, Devance, D. Pulmonary rehabilitation for chronic obstructive pulmonary disease. Cochrane Database of Systematic Reviews 2015, Issue 2.

Conclusions

Conclusion: Community based PR is feasible and achieves similar improvements in outcome compared to PR in hospital settings as demonstrated in this retrospective analysis. The groups were very small, therefore I would view the results with caution, particularly the statistically significant difference for improvement in depression between the hospital group and one of the community groups. Feedback via patient experience questionnaires favoured the community setting as having easier access facilities. References: 1. McCarthy, B, Casey, D, Devance, D. Pulmonary rehabilitation for chronic obstructive pulmonary disease. Cochrane Database of Systematic Reviews 2015, Issue 2.

Research Presentations

CR4 Respiratory Integrated Care – Oxygen Therapy Clinic. The development of a new oxygen review service integrated between primary and secondary care for patients who require assessment for or are currently using oxygen therapy in Co. Mayo.

Ms. Julianne Tansey¹, Ms. Aoife Folliard¹, Dr. Suhail Basunaid²

1. Community Healthcare West Mayo, HSE, 2. Mayo University Hospital

Objectives

A collaborative Respiratory Integrated Care (RIC) and Mayo University Hospital (MUH) service needs analysis concluded that patients on oxygen therapy in Co. Mayo required a more streamlined follow up and review as per best practice guidelines ¹ To address this need a steering group was established where an integrated oxygen therapy clinic was proposed. This collaborative integrated clinic would be based in the primary care centre in Castlebar Co. Mayo and service patients on oxygen or requiring further assessment for it, under the clinical governance of Dr Suhail Basunaid, Respiratory Consultant, MUH. In addition the clinic would provide a quality improvement service that prevents secondary care attendance.

Method

A standard operating procedure was drafted by the authors which outlined appropriate patients and the referral pathways and also included an excel spread sheet developed as a method of communication and data collection. Assessments and interventions were based on the British Thoracic Society guidelines ². Arterial blood gas (ABG) sampling was performed as clinically indicated and a point of care machine was used analyse the samples. All patients reviewed in the clinic were discussed with the

clinical lead and/or respiratory team who also facilitated any prescription changes.

Results

The following results summarise a pilot clinic that took place between January and March 2018. 24 new patients were reviewed in 6 clinics. 80% (n=20) of the patients reviewed had a diagnosis of Chronic Obstructive Pulmonary Disease (COPD) and the remaining 20% (n=4) had either Interstitial Lung Disease or had being prescribed oxygen on discharge following a recent hospital admission. All appointments were 1 hour long, which allowed for a comprehensive assessment as well as time for education for the patient, families & carers about the benefits and risks associated with oxygen use. 21% (n=5) of patients that were reviewed required an ABG. 3 patients required a change of device. 4 patients required a second review in the clinic for further education or re assessment with an alternative device. 100% (n=24) of patients required extensive education. 21% (n=5) patients required follow up with the respiratory consultant, this early intervention has possibly prevented an attendance to the ED or hospital admission. During the pilot clinic positive verbal feedback was received from patients attending and their families regarding the suitability of the location off the hospital campus, ease of access and the time available to discuss the oxygen therapy and their concerns.

Conclusions

The clinic now provides a streamlined service for patients currently using oxygen or requiring further assessment for it in Co. Mayo. This multidisciplinary integrated clinic is the first of

its kind nationally delivered in a primary care setting by a respiratory physiotherapist and respiratory nurse. By facilitating ABG sampling and oxygen device changes the clinic prevented multiple patient attendances in MUH and a time saved of 24 hours for hospital staff. The plan for future development is to offer similar clinics in primary care centres throughout Co. Mayo, thus bringing the service closer to the patient's home in keeping with the National Clinical and Integrated Care Programme model of care and the RIC team is optimally positioned to provide this service.

References

1. www.irishthoracicsociety.com/images/uploads/LTOT%20guideline%202015.pdf British Thoracic Society (BTS) Home Oxygen Guideline Group. BTS Guidelines for Home Oxygen Use in Adults 2015. Thorax 2015; Volume 70 Supplement 1.

Research Presentation: Falls & Frailty

16.20hrs Saturday 10th

November

Venue: Bricklieve

Chair: Edel Brennan

FR1 Development of a Geriatric Emergency Medicine Service (GEMS), 'Frailty on the Acute Floor' in St. Luke's General Hospital Carlow-Kilkenny

Ms. Helen Fitzgerald¹, Ms. Maureen O Callaghan¹

1. St. Luke's Hospital Kilkenny

Objectives

The objective is early identification of patients living with frailty, by screening all patients aged 75 years and older who present to the emergency department (ED) and the acute medical assessment unit (AMAU) and providing a comprehensive geriatric assessment (CGA) to those identified as frail. This enables delivery of the right care in the right place in a timely manner, to facilitate admission avoidance and to minimise hospital stays

Method

The GEMS Team was established in February 2017. It is an interdisciplinary team consisting of Consultant Geriatrician, Senior Physiotherapist, Clinical Nurse Specialist, Senior Occupational Therapist and Administrative support. All patients aged 75 years and over who attend the ED and AMAU are screened upon triage for frailty using the VIP tool (Variable Indicative of Placement Risk), therefore capturing 100% of the attending population. If a patient is screened as being GEMS positive, using the VIP tool, they will receive a CGA within 72 hours by the GEMS team. During normal working hours, the aim is to commence the CGA within the first hour of the patient presenting to the acute floor. The CGA facilitates interdisciplinary care planning and on completion, the patient's frailty score is calculated based on the Rockwood Clinical Frailty Scale. The CGA allows generation of appropriate referrals to members of the core GEMS Team -Physiotherapy and Occupational

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Therapy and to other disciplines such as Pharmacy, Dietetics, Speech and Language Therapy, Discharge Planning, Palliative Care services, to ensure early intervention to avoid functional decline while in hospital. The CGA facilitates early discharge from the Acute Floor and reduces the number of admissions. The CGA reduces the length of stay of admitted patients through planned and co-ordinated delivery of care. The CGA reduces the re-admission rates of admitted patients through support and long term follow up in the community. In August 2017, the cohorting of GEMS patients on one specially designated ward was commenced. Triage by the GEMS Team facilitates flow of patients from the acute floor into this ward.

Results

From 21/02/2017 to 20/02/2018 4,854 patients were triaged in SLGH 43% screened positive for frailty 79% were subsequently admitted Median LOS reduced from 6 days in period of March to May 2017 to 5 days in same period in 2018 30-day readmission rate reduced from 15% March to May 2017, to 11% January to March 2018 for patients 75 Years+ and from 13.8 % in Mar-May 2017, to 12.5 % Jan-Mar 2018 for patients 85 years+.

Conclusions

The interdisciplinary GEMS Service has resulted in positive outcomes for patients and for the hospital, with reduced lengths of stay and reduced re-admission rates. Our results will lead to further development of frailty services, to include community and acute services in an integrated system. This is hugely significant in the context of a 20% increase in people aged over 65 in Carlow and Kilkenny between the 2011 and 2016 census, with a prevalence of

frailty in CHO 5 of 22.9% (TILDA).

FR2 Physical Performance and Quality of Life is improved in frail older medical inpatients with an augmented prescribed exercise programme (APEP)

Dr. Ruth McCullagh¹, Ms. Eimear O'Connell², Ms. Sarah O'Meara¹, Prof. N.Frances Horgan³, Dr. Suzanne Timmons¹
1. University College Cork, 2. Mercy University Hospital, Cork, 3. Royal College of Surgeons, Ireland

Objectives

To measure the effects of an augmented prescribed exercise programme on physical performance, quality of life and healthcare utilisation for frail older medical patients in the acute setting.

Method

Methods: Within two days of admission, older medical inpatients with an anticipated length of stay ≥ 3 days, needing assistance/aid to walk, were blindly randomly allocated to the intervention or control group. Until discharge, both groups received twice daily, Monday-to-Friday half-hour assisted exercises, assisted by a staff physiotherapist. The intervention group completed tailored strengthening and balance exercises; the control group, stretching and relaxation exercises. Physical performance (Short Physical Performance Battery), quality of life (QuroQOL-5D-5L), length of stay and readmission rates were measured at discharge and at three months. Time-to-event analysis was used to measure differences in length of stay. Changes in physical performance and quality of life was compared using unadjusted and adjusted linear regression models.

Results

Results: Data from 198 patients (aged 80 ± 7.5 years) was analysed. Groups were comparable at baseline. Unadjusted analysis showed that the intervention reduced the length of stay slightly with no statistical significance (HR 1.09 (CI, 0.77-1.56) $p=0.6$). When patients transferred to rehabilitation were excluded and adjusted for confounders, the effect was greater, but remained insignificant ($n=125$, 1.3 (CI, 0.9-1.87) $p=0.16$). Adjusted and unadjusted physical performance was significantly and clinically meaningfully better in the intervention group at discharge (adjusted, $n=174$, 0.78 CI, 0.28-1.29) $p=0.003$), but none at follow-up ($n=123$, 0.45 (CI, 0.43-1.33) $p=0.3$). When adjusted, quality of life was significantly and clinically meaningful better in the intervention group at discharge ($n=174$, 6.72 (CI, 0.66-12.8) $p=0.03$).

Conclusions

Conclusion: The significant changes in physical performance and quality of life suggest that this simple intervention is valuable and useful to frail medical inpatients. With a limited number of patients discharged directly home, evidence of its effect on length of stay remains inconclusive. This research trial was funded by the Health Research Board (HRB HPF 2013 451) and awarded to Ruth McCullagh.

P1 a survey of staff awareness about the importance of and barriers to physical activity for patients

Ms. Deirdre Molloy¹
1. St

Objectives

The purpose of this staff survey was to gather information from all members of hospital staff regarding their knowledge of the importance of physical activity (PA) and mobilisation for patients, and what they perceive as barriers to mobilisation. Staff were also asked to comment on how frequently patients asked for assistance to get dressed in their day clothes and were asked to contribute ideas to help patients mobilise more.

Method

This survey was conducted as part of a hospital wide "de-conditioning awareness day". This awareness day consisted of stand run by various members of allied health promoting the importance of physical activity (PA) for older adults in both the acute and community setting. In the survey, staff were asked if they were of the importance of physical activity, what contributed to de-conditioning, what barriers existed to mobilisation, how they felt de-conditioning could be prevented and how often patients asked to be dressed in their own clothes.

Results

A total of 85 staff members participated in the study; 37 members of nursing staff, 27 allied health professionals, 2 doctors and 19 non clinical staff members. 91% of staff were aware of the importance of physical activity and mobilisation and knew what factors contributed

to de-conditioning. Barriers to mobilisation included staff shortages, concerns that patients were too ill to mobilise, fear of falls, pain, lack of equipment, dizziness and nausea, mood and motivation, poor mobility, crowded corridors, lack of patient and staff education and patient anxiety. Staff had many ideas for

Conclusions

This staff survey highlighted that staff had good knowledge regarding the importance and benefits of (PA) and mobilisation for patients. It also highlighted barriers to mobilisation and solutions for how these can be overcome. Many of these solutions were low cost and easy to implement. The results from this survey can be used to inform future endeavours to improve activity levels.

P2 Title: A comparison of the fibromyalgia (FMS) pathway provided in Tallaght University Hospital (TUH) against recommendations for the non-pharmacological management of fibromyalgia as outlined in the EULAR guidelines 2016.

Ms. Maria McGrath¹, Ms. Carol Rafferty², Ms. Sarah O'Driscoll¹, Ms. Elaine Hughes¹, Dr. Ronan Mullan³, Prof. David Kane³, Dr. Diana Gheta³

1. *Physiotherapy Department, Tallaght University Hospital*, 2. *Occupational Therapy Department, Tallaght University Hospital*, 3. *Rheumatology Department, Tallaght University Hospital & Naas General Hospital*

Objectives

To audit the FMS pathway in TUH against the revised EULAR recommendations 2016 for the non-pharmacological management of FMS.

Method

Management of fibromyalgia should aim at

improving health-related quality of life balancing benefit and risk of treatment that often requires a multidisciplinary approach with a combination of non-pharmacological and pharmacological treatment modalities tailored according to pain intensity, function, associated features such as depression, fatigue, sleep disturbance and patient preferences and co-morbidities; by shared decision-making with the patient. Initial management should focus on non-pharmacological therapies (McFarlane GJ et al, 2017). The FMS pathway in (TUH) provides 4 group based exercise and education sessions for patients referred from Rheumatology and Rheumatology MSK Triage with FMS. The recommendations for the non-pharmacological management of FMS 2016 were used to compare the practise in the FMS pathway. Each chart was reviewed to determine the input from PT and OT and whether each of the guidelines was met, as part of the pathway. 19 patient charts of those who attended the pathway in 2017 were audited. There were recommendations for and against certain interventions in the EULAR review of the guidelines in 2016. These were categorised in terms of level of evidence, grade of evidence, strength of recommendation and % agreement among clinical experts. Data was input to an excel spread sheet and scored for whether or not the recommendation was met for each chart audited.

Results

In the EULAR recommendations 2016 there is strong evidence for the use of exercise which was provided to 100% of people attending the pathway in TUH. Individualised exercise programs were provided in 46.5% of cases either before or after the pathway as 1:1 sessions in PT. Heated pool therapy, with or

without exercise, is recommended in the EULAR guideline. Group based exercise was performed in the heated aquatic therapy pool in 100% of cases in the FMS pathway in TUH. There was weak evidence, in the EULAR 2016 guidelines, for acupuncture, CBT (particularly where other interventions have failed), meditative movement, mindfulness and mind body therapy. These interventions are not provided in the FMS pathway in TUH. There was weak evidence for a multi-modal approach to management. The pathway is run by PT and OT providing a partly multi-disciplinary approach.

Conclusions

The FMS pathway in TUH provides a multi-modal aquatic exercise and education based format which is supported by the EULAR 2016 guidelines. There are a number of interventions that we do not offer. These include; acupuncture, CBT, meditative movement therapies, mindfulness and mind-body therapy. There are a number of research questions proposed in the guidelines which when answered may influence practise in the future. These include:

- Which type of exercise is most effective?
- Are combined pharmacological and non-pharmacological approaches to management more effective than single-modality management?
- Are there characteristics of patients with fibromyalgia that predict response to specific therapies?
- How should fibromyalgia be managed when it occurs as a co-morbidity to inflammatory arthritis?
- What aspects of a healthcare system optimise outcome for patients (who is best for the management of FM patients)?

P3 The Impact of Imaging on Physiotherapy Outcomes of Chronic Low Back Pain Patients

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1. Pearse Street Physiotherapy Clinic, 2. Royal College of Surgeons in Ireland

Objectives

The lifetime prevalence of Low Back Pain (LBP) worldwide is estimated to be 60-85% and it is the most common cause of years lived with disability (Deane &McGregor 2016). The main purpose of imaging for the LBP patient is to rule out a serious underlying condition and current evidence has suggested that abnormal MRI findings do not always correlate with LBP presentation. The purpose of this archival study was to examine the impact of imaging on the outcomes of patients with Chronic LBP (CLBP) attending for treatment in a private physiotherapy clinic.

Method

An integrated computer based system was used to record patient information and clinical details. From this information we extracted all consenting patients presenting with CLBP as their primary complaint over a five-year period from 2012-2017. We reviewed the clinical notes of these patients to determine whether they had undergone imaging or not. The objective and subjective outcomes of these groups (Imaging and No Imaging) were compared. The relevant information was identified and analysed using descriptive statistics and appropriate t-tests where relevant.

Results

697 new patients presented for treatment of CLBP over the five year period analysed. Overall

62% of all CLBP patients had undergone some form of imaging. The mean number of appointments attended was significantly higher in the Imaging group, at 12.6 appointments compared to 6.5 ($P < 0.0001$). Cancellation rates were also significantly higher among those without imaging, at 36% compared to 29% for those who did have imaging ($P = 0.0053$). Other outcomes were not significantly different between groups, with the No Imaging group containing a slightly higher proportion of patients achieving All Goals and No Goals, and a slightly higher proportion of the Imaging group feeling 100% Better on discharge.

Conclusions

This study suggested that including Imaging in the assessment of the patient with CLBP may improve retention in physiotherapy treatment. However there is no correlation between the use of Imaging and Goals Reached by discharge. The literature surrounding the use of imaging for CLBP is inconclusive at present and this study provided conflicting findings in determining the value of imaging in this patient group.

P4 A Physiotherapy led Fracture Clinic-a new role for Physiotherapy in Orthopaedics

Ms. Carol Forbes¹
1. Cork University Hospital

Objectives

To improve service delivery for patients with non complex Orthopaedic injuries To streamline these patients for review by a Clinical Specialist Physiotherapist(CSP), allowing the Consultant to deal with more complex cases, thereby decreasing the number of inappropriate consults with the Consultant To further enhance the MDT working relationship, by

having a CSP present in Fracture Clinic To decrease the need for Outpatient physio referral for this patient group,thereby reducing the Outpatient Physio workload and allowing the patients condition to be managed in one consultation(right person,right place,right time)

Method

Cork University Hospital(CUH) is the centre for Orthopaedic trauma in Cork.This service is led by 8 Consultants.8 Outpatient Fracture Clinics run weekly with an average of 60 patients per clinic(24 new patients,36 review patients).A Physio with specialised training in Orthopaedics,along with the Orthopaedic Consultants,devised a list of non complex Orthopaedic conditions suitable for review by a CSP rather than by Consultant/Reg. This would allow the Consultant to devote their clinic time to more complex Orthopaedic conditions, which require their expertise. 7 specific conditions were chosen,based on the fact that they rarely require Orthopaedic intervention.These were: Mallet Finger,Fracture distal phalanx,fracture base of 5th Metatarsal,Avulsion tip of lateral malleolus/severe ankle sprain,Grade 3 AC joint injury,Buckle fracture distal radius/ulna in children,fracture clavicle in children Patients who present with these conditions to the 5 local ED's/LIU's are assessed and diagnosed by medical staff.Patients are then referred on a pathway to the Physio led Clinic rather than the regular Fracture Clinic.The Physio led Clinic runs alongside the regular Fracture Clinic 3 mornings per week with an average of 13 patients per clinic(11 new patients ,2 review patients). Access to Orthopaedics is available PRN. Patients receive a comprehensive assessment of their injury along with Physio education and advice.

Results

The clinic has been in operation since February 2016 Over 2200 new patients have been seen with 90% discharged at initial appointment with advice and exercises.9.6% required a return appointment(for re x-ray,removal of splint/cast,clinical assessment). .4% required onward referral to Orthopaedics. 8% required referral for OPD physio. Without access to the Physio led clinic,all of these patients would have been referred to the general Fracture Clinic,leading to longer waiting times for appointments. A patient satisfaction survey,with a diverse range of questions-including duration of waiting time from referral to appointment,management of patients condition,explanation given re condition and overall satisfaction with the clinic showed high levels of satisfaction across all aspects

Conclusions

A CSP can competently manage certain non complex Orthopaedic conditions,in a Fracture clinic setting.This Clinic benefits the patient,who gets seen in a timely manner,by a suitably experienced Clinician.It benefits the Orthopaedic team,who can devote their clinic time to more complex Orthopaedic conditions,which require their expertise.It benefits the MDT relationship due to the presence of the CSP in the Fracture Clinic.It benefits the Orthopaedic service,by increasing efficiency. It benefits the Physio Outpatient service as the vast majority of patients are discharged with suitable advice and exercise at their Fracture clinic appointment,and thereby don't require Outpatient Physio

There is scope to increase the number of weekly clinics carried out by the CSP and to expand the conditions seen,under the guidance of the Orthopaedic team.

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It is a role which will likely develop further over the coming years and represents an exciting prospect for the role of the CSP in Orthopaedics

P5 Large Variability in Clinician Expectations of Arthroscopic Partial Meniscectomy; a Study of Physiotherapists and Orthopaedic Surgical Teams.

Mr. Nathan Cardy¹, Dr. Jonas Thorlund², Dr. Fiona Wilson¹

1. Trinity College Dublin, 2. University of Southern Denmark

Objectives

The aim of this study was to explore current expectations of Arthroscopic Partial Meniscectomy (APM) among Irish clinicians. Recent guidelines have advised that APM is no better than exercise interventions for degenerative meniscus tears of the knee. This study examined the expectations of physiotherapists across multiple disciplines and doctors within orthopaedic surgical teams. Our objectives were to establish the mean expectation of change following APM, and to examine if clinical experience was associated with a different expectation of APM.

Method

The Hospital for Special Surgery (HSS) Knee Surgery Expectations Survey (Clinician Version) is a questionnaire designed to grade a clinician's expectation of how a patient will improve following arthroscopic knee surgery. Clinicians grade 23 items from one to five based on how much relief or improvement they expect a patient will have in each area as a result of knee surgery. Scores are transformed to a 0-100% Scale, with higher scores indicating that clinicians expect more improvement from more items. In March 2017, questionnaires were distributed to all team members at

physiotherapy and orthopaedic department meetings in two Dublin teaching hospitals. Clinicians were advised to respond while considering the average patient undergoing arthroscopic meniscus surgery. Clinicians also reported: their job grade; number of years' experience; current specialty and average number of arthroscopic meniscus surgery patients treated in a year. Total scores for the HSS survey were calculated and reported for different clinical groups, as Means (SD). Correlations between the expectation (total score for change) and clinical experience (job grade / years' experience / number of patients per year) were also assessed.

Results

Questionnaires were completed by 72 clinicians. Nineteen orthopaedic doctors with a mean of 6.8 years' experience in Orthopaedics, 52 Physiotherapists with a mean 7.4 years' post-graduate experience (32% specialising in Musculoskeletal / Orthopaedics). Mean (SD) improvement expected was 59% (16) for the Orthopaedic team members and 51% (22) for Physiotherapists. The difference between clinician groups was not statistically significant ($P = 0.36$). Physiotherapists working in orthopaedics/musculoskeletal had a similar expectation of improvement to other specialties at 55% (24). There was no correlation between years of experience and clinician expectation of improvement ($r = 0.08$). A large variance in expectation scores was found, for all clinician groups.

Conclusions

Although recent guidelines and studies have shown that APM is not an effective first line treatment for meniscus injury in many patient populations, the large variation in clinician

response scores shows a lack of agreement on the expected outcome of APM for patients undergoing surgery in Irish hospitals. While the mean clinician expectation is similar in orthopaedic surgical and physiotherapy teams, this expectation represents an average of 'moderate' improvement across the population of clinicians included in this study. A large range in response scores reflects the high variability in clinician expectations across both teams. Differing expectations of surgery among clinicians could lead to conflicting education of patients and poor selection of patients for surgery within the Irish healthcare system. This study formed part of the Trinity Meniscus Study (TRIMS) which was funded by a Trinity College Dublin PhD stipend.

P6 "The Effect of Foam Rolling on Soleus Muscle Excitability: A Pilot Study"

Ms. Hannah Moran¹, Ms. Laura Hennigan¹, Mr. Andrew Boylan¹, Mr. Mark Rennick¹

1. University College Dublin

Objectives

In recent years, the theory and application of foam rolling has been evolving in medicine and sport (Healey et al, 2014). It has been found to have effects on flexibility, range of motion, muscle soreness and neuromuscular efficacy (MacDonald et al, 2014). The objective of this study was to investigate the effects of foam rolling on the neuromuscular excitability of the soleus muscle, as measured by changes in the Hoffmann Reflex (H-reflex). The H-reflex is a measure of the efficacy of synaptic transmission as the stimulus travels in 1a afferent fibres through the motor neuron pool of the muscle to the efferent fibres.

Method

Twenty healthy subjects were recruited for this

pilot study from the University College Dublin School of Public Health, Physiotherapy & Sports Science. The participants were instructed to complete a questionnaire on the day of testing which included details on their gender, exercise frequency and experience of foam rolling. Their BMI was also calculated. The H-reflex was elicited from the soleus muscle of the dominant leg by applying an electrical stimulus to the tibial nerve while measuring surface EMG responses (BIOPAC Systems). The patient was lying prone and instructed to assume a relaxed position. H-wave and M-wave measurements were taken three times in total. Subjects were given a brief demonstration of the technique and instructed to foam roll for two minutes; 30 seconds on, 15 seconds off. Their NRS score was taken during each rest period. For the evoked potentials, peak-to-peak amplitude of the H-reflex and M-wave were obtained to form the H/Mmax ratios for statistical analysis (Palmieri, 2004).

Results

Using Paired t-tests, it was found that there were no statistically significant differences ($p \leq 0.61$) between baseline (0.62 ± 0.31) and pre-intervention (0.70 ± 0.65) H/Mmax ratios, as expected. There were also no statistically significant differences ($p \leq 0.12$) between pre-intervention and post-intervention (0.45 ± 0.27) H/Mmax ratios. However, 17 out of the 19 post foam-rolling H/Mmax ratio values had decreased when compared to pre-intervention values.

Conclusions

From these results, it can be concluded that foam rolling the triceps surae immediately appears to decrease the H/Mmax ratio of the soleus muscle. This may have clinical implications in that it supports the use of foam

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rolling in sports and exercise recovery by reducing the excitability of the muscle fibres and their readiness to contract in the short term (MacDonald et al, 2014). This pilot study provides a foundation for further research and warrants further investigations regarding the effect of foam rolling on muscle excitability and its use as a recovery tool as opposed to a warm up tool, for which it is more normally recognised (Bradbury-Squires, 2015).

P7 Low level falls lead to high incidence of major trauma. Data from the Major Trauma Audit (MTA) in Ireland

Ms. Louise Brent¹, Dr. Conor Deasy²
1. National Office of Clinical Audit, 2. Cork University Hospital

Objectives

Trauma care is complex and challenging. People sustain multiple injuries requiring urgent medical attention. The care of critically ill patients with severe injuries requires a multi-disciplinary, multi-institutional, coordinated and integrated system of trauma care. The MTA provides high-quality data to facilitate local, regional and national quality improvement initiatives.

Method

MTA collects data from all 26 trauma receiving hospitals in Ireland, including pre-hospital records, hospital clinical records, radiology, surgical operation reports, hospital administration information systems and the Hospital-In-Patient-Enquiry (HIPE) information system. All data is directly entered onto the secure Trauma Audit Research Network (TARN) portal for injury coding and analysis.

Results

The MTA National Report 2016 detailed the care of 4,426 patients. 47% of patients sustained their injuries in their own homes with the most common mechanism of injury being recorded as a 'low fall' of less than two metres in 51% of patient recorded. Overall, 58% of patients were male, the mean age of patients was 55 years and the median age was 59 years. In the age categories from early childhood to 54 years, males were the predominant gender among patients and in those aged 55 years and over females were the predominant gender. 40% of major trauma patients are from the older population (≥ 65 years). 58% of major trauma patients arrive to the emergency department after 4pm. The mechanism of injury varies by age band, with road trauma and blows dominating the younger age bands and 'low falls' dominating the older age bands. Advanced age correlates with higher numbers of comorbidities, making the clinical management of older major trauma patients more complex and difficult, and requiring a multidisciplinary approach. Older patients were less likely to be pre-alerted and reviewed by a senior clinician. Older patients are more likely to die and suffer higher levels of disability than younger major trauma patients with a similar injury severity score (ISS). Only 62% of major trauma patients were discharged directly home. Older patients are less likely to be discharged home and more likely to be discharged to rehabilitation or long-term care compared to younger patients.

Conclusions

Health services need to take account of the changing demographic of trauma patients; specifically MTA highlights a high incidence of older patients sustaining major trauma. Injury prevention programmes should consider

methods of reducing injury across the trauma spectrum, especially the high burden of injury associated with low falls. Pre-hospital carers and emergency medicine professionals should exercise a high level of suspicion of major trauma in older patients with low-energy mechanism injuries. To support this approach to care - clinical assessment and triage tools should be adapted to suitably assess older patients. Education programmes for pre-hospital carers and emergency medicine professionals should include care for the older patient with low-energy mechanism injuries.

P8 Irish Hip Fracture Database - improving hip fracture care in Ireland

Ms. Louise Brent¹, Dr. Emer Ahern², Mr. Conor Hurson³

1. National Office of Clinical Audit, 2. St Luke's General Hospital, 3. St Vincent's University Hospital

Objectives

Hip fractures are an increasing socio-economic burden. They are the leading cause for surgery in hospitalised older adults (typically aged 80 and older) and cause high levels of disability and mortality. The Irish Hip Fracture Database (IHFD) collects data in all 16 trauma units in the Republic of Ireland. There is good evidence to show that the combination of care standards (Blue Book Standards, BOA & BGS, 2007), clinical audit and feedback can significantly improve the outcomes of hip fracture patients. Each year our national report informs policymakers, hospital management and a wide range of healthcare professionals about how well hip fracture care is delivered in Irish hospitals. It also, importantly, informs patients about what standard of care to expect when they are hospitalised with a broken hip.

Method

To date four national reports have been published. The upcoming report for 2017 captured clinical audit data for 95% cases (3,497 patients). A study on emerging trends in hospitalisation for fragility fractures in Ireland by Kelly et al (2018) showed that the absolute number of all fragility fracture admissions increased by 30% between 2000 and 2014, for both men (40%) and women (27%). In-patient bed days for osteoporotic fractures have increased by 51% with hip fractures dominating these admissions (36.5%) and accounting for almost half (46.7%) of all bed days. The IHFD is the catalyst towards addressing what is a significantly growing healthcare and societal challenge. At a local level each hospital can use their data to improve the quality of care they deliver by improving the integration between multiple specialities such as orthopaedics, geriatrics, emergency medicine, anaesthesia, nursing and allied health professionals. Nationally this data enables strategic planning for the future development of care for older people in Ireland.

Results

The 2016 IHFD Report showed that 69% of patients are female and the average age is 80 years, 81% are admitted from home and 48% had high functional mobility pre-fracture with 60% having significant co-morbidities. 14% of patients are being admitted to a specialist orthopaedic ward within 4 hours, 73% patients are receiving surgery within 48 hours, 56% patients were seen by a geriatrician, 77% being mobilised the day of or after surgery, 5% developed a pressure ulcer, and over half of patient's are receiving secondary prevention for osteoporosis (57%) and falls (54%). The median length of stay is 12 days. In 2016 national bypass for hip fractures was introduced and in 2018 the

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pilot of a best practice tariff for hip fractures will commence.

Conclusions

Recommendations from the IHFD 2016 Report: Each hospital should have a hip fracture committee invested in quality improvement using the IHFD data. All trauma services should provide an orthogeriatric service and seven day a week access to theatre, rehabilitation and medical support. We are recommending that all suspected hip fracture patients should be brought directly to the trauma operating hospital. With the support and endorsement of the National Office of Clinical audit (NOCA) the IHFD enables integrated and quality improvement in care and outcomes for hip fracture patients.

P9 The Irish Hip Fracture Database:

Incorporating new Rehabilitation Data-fields

Ms. Michelle Fitzgerald¹, Ms. Edel Callanan², Prof. Catherine Blake³, Ms. Louise Brent⁴, Mr. Conor Hurson⁵, Dr. Emer Ahern⁶, Dr. Caitriona Cunningham³

1. Tallaght University Hospital, 2. Merlin Park University Hospital, 3. University College Dublin, 4. National Office of Clinical Audit, 5. St Vincent's University Hospital, 6. St Luke's General Hospital

Objectives

Although overall outcomes post hip fracture have been improving recently, functional outcomes are poor, with hip fracture rehabilitation recognised as a central challenge in trauma services. A key strategy in improving hip fracture outcome is the implementation of national hip fracture databases, allowing health services to monitor standards of care. However, national databases often lack information

regarding physiotherapy service provision and functional outcomes. This impairs the ability of health services to profile functional outcomes, assess barriers to rehabilitation and evaluate the impact of organisation improvements in hip fracture care on functional outcome. The Irish Hip Fracture Database (IHFD) was established in 2013 with a paucity of rehabilitation or functional outcome data. Aim: Incorporate evidence-based rehabilitation focussed data-fields into the IHFD.

Method

The IHFD governance committee has 11 multidisciplinary members including health and social care. In 2015 a physiotherapy working group was established to examine the potential for inclusion of physiotherapy focussed datafields. This group comprised clinical, managerial and academic members. A pilot study identified feasible, evidence-based functional measures that could be implemented in a clinical setting, and be prognostically important. Using the Adapte process for guideline adaptation, an international guideline review informed physiotherapy service indicators.

Results

The proposed new measures were reviewed by the IHFD governance committee and the following 5 new fields were added to the IHFD from 1st January 2016 following engagement and education of physiotherapists, physiotherapy managers and IHFD data-collectors in the 16 trauma orthopaedic sites nationally.

- Day one postoperative physiotherapy assessment:Yes/No
- Day one postoperative mobilisation:Yes/No
- Prefracture function:New Mobility Score(Score 0-9)
- Function day one postoperatively and day of

acute hospital discharge: Cumulated Ambulatory Score (Score 0-6)

Conclusions

Rehabilitation data-fields were successfully added to the 2016 IHFD, enabling accurate profiling of Irish physiotherapy service provision and functional outcome post hip fracture. These data will be presented in the 2016 IHFD report. Continued commitment to rehabilitation focussed data collection will enable evaluation of hip fracture service enhancements on functional outcome.

P10 An Audit of a Pilot Physiotherapy Lead Back Pain Screening Clinic

Ms. Yvonne Burke¹, Ms. Kate Tierney¹
1. St James's Hospital

Objectives

Low back pain (LBP) has been associated with a relatively high incidence and prevalence (Koes et al. 2010). Not only can LBP have a profound impact on an individual's life in terms of pain, potential work absenteeism (Mounce 2002), it can place a large burden on a healthcare system. In the United Kingdom physiotherapists with extended scope of practice have reduced wait times, lowered direct hospital costs and had high levels of patient satisfaction (Robarts et al. 2017). An advanced practice physiotherapist (APP) was introduced to work alongside the orthopaedic team of St James in December 2017. The aim of the APP was to improve patient access to orthopaedics services and ensure appropriate care pathways were commenced in a timely manner.

Method

Patients were triaged from the orthopaedic waitinglist using the existing St James's

Physiotherapy Musculoskeletal Triage inclusion/exclusion criteria. The clinic ran once weekly in the physiotherapy department for 20 weeks.

Results

115 patients were removed from the orthopaedic waiting list; the average age of patients was 48.41 years (Female= 54 Male =61). Of the 115 patients, 65 patients were reviewed (56%), 50 Did Not Attend (44%). Of the 65 patients that were reviewed, 25 were discharged (69%), 20 were referred to Physiotherapy (31%), 4 were referred to the pain team (17%), 2 were awaiting spinal surgery (6%) and 3 (4%) referred to another hospital. MRI Imaging was ordered on 15 patients who will require a return appointment. The average weight time for an appointment improved from 16 months in December 2017 to 4 months in August 2018.

Conclusions

The introduction of the BPSC enabled improved access of services and facilitated optimal management of patients. Data to date suggests that weekly 6 patients were removed from the waiting list which over the course of a year equates to 312 patients. Funding was sought to continue this project until the end of 2018. Local initiatives to improve DNAs have commenced as well as patient feedback on the service.

P11 "Smarter Working": Refining a Multi-site Interdisciplinary Integrated Care Pathway for Conservative Management of Carpometacarpal Joint Osteoarthritis

Ms. Yvonne Codd¹, Dr. Diana Gheta^{1,2}, Ms. Orlagh Harty¹, Prof. David Kane^{1,2}, Ms. Maria McGrath², Ms. Paula Minchin², Dr. Ronan Mullan^{1,2}, Ms. Sarah O'Driscoll², Ms. Rachel

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Burke¹

1. *Rheumatology Department, Naas General Hospital,* 2. *Rheumatology Department, Tallaght University Hospital*

Objectives

Background: Tallaght University Hospital (TUH) Physiotherapy and Occupational Therapy (OT) Departments developed an evidence-based integrated care pathway (ICP) for patients with carpometacarpal (CMC) joint osteoarthritis (OA) in 2016¹. In 2017 this pathway was revised in response to waiting list demands and to improve pathway flow². Subsequently the ICP was adopted by Naas Hospital as both TUH and Naas Hospital share rheumatology medical teams. As a result the ICP required further modifications to enhance collaborative working and deliver equal service provision for this patient cohort.

Objective: To develop an ICP for patients with CMC joint OA that delivers inter-disciplinary, evidence-based, person-centered care, in an efficient, collaborative way, across two acute hospitals.

Method

Collaborative meetings took place by teleconference, with the initial planning meeting being face-to-face. The following changes were implemented A data collection tool was developed and saved on a shared drive unique to each site that was accessible to the treating therapists.

An OA CMC clinic was set up with protected time slots: OT and physiotherapy appointments were coordinated for new and return patients. Patients who were referred with multiple musculoskeletal problems were seen separately for their thumb at the OA CMC clinic. Physiotherapists and OTs used the same initial

assessment template at the clinic and shared treatment areas where space allowed. A patient information leaflet was developed to explain what to expect at the clinic appointment. This was posted out with the outcome measures with the initial appointment letter. A feature of the pathway was attendance at a joint protection group facilitated by OTs. Resources, such as the initial assessment form, appointment letter, patient information leaflet, data collection tool, exercise programme template, and joint protection group format were shared across sites. Cross-site reviews of the ICP were conducted at quarterly intervals for 1 year.

Results

Establishment of designated clinic slots had a positive impact on waiting times for this patient cohort, as reported in the review by O'Driscoll et al (2018)³. The average overall improvement in function, as determined by the DASH questionnaire, was statistically significant and reported elsewhere³. Communication channels were improved between disciplines across the two hospital sites. Administrative and clinical practices were streamlined, facilitating a smooth flow of referral management within all services, with clear expectations and roles for all team members. Anecdotal evidence suggested that patients reported satisfaction with the ICP. Furthermore, collaborative working facilitated interdisciplinary research opportunities³.

Conclusions

Use of a satisfaction survey in future reviews of the ICP would formally capture the reported patient satisfaction levels. An analysis of the number of appointments provided would determine the cost effectiveness of this model of care. This ICP facilitates efficient, quality interdisciplinary, conservative management of

CMC joint OA. The format is easily replicable for other conditions and in other clinical settings.

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Acknowledgements: Eimear Flood, OT, Naas General Hospital, Carol Rafferty, Senior OT, TUH

P12 The effectiveness of a group based exercise and educational intervention for hip and knee osteoarthritis: A service evaluation in an acute hospital

Ms. Niamh Dillon¹
 1. St. Vincent's University Hospital / University College Dublin

Objectives

Best practice guidelines recommend a multifaceted approach in the treatment of osteoarthritis (NICE 2014). Therefore, the

primary aim of the service evaluation was to determine the effectiveness of a 6-week exercise and educational intervention for patients with hip and knee osteoarthritis (OA) on functional outcomes. Recent evidence suggests factors outside of local joint pathology, such as pain sensitisation can contribute significantly to the pain experienced by individuals with OA (O'Leary et al. 2015) Furthermore, a secondary aim of the evaluation was to determine the proportion of patients with symptoms of central sensitisation. A service evaluation of this intervention has not been carried out in St Vincent's University Hospital to date.

Method

20 patients with a diagnosis of hip or knee osteoarthritis completed the programme between February and April 2017. Patient-specific functional score (PSFS), WOMAC (Western Ontario and McMaster Universities Osteoarthritis Index), five times sit to stand (FTSS) and the central sensitisation inventory (CSI) scores were measured at baseline, post intervention and at 6 months post intervention. Each individual was referred to the programme by an orthopaedic consultant and screened by a physiotherapist to ensure they met the inclusion criteria (independently mobile and cardiovascularly stable). Patients completed twice-weekly sessions of supervised circuit exercises and education for 6 weeks. Paired sample t tests were used to compute the differences between pre, post and follow-up outcome measures. Spearman correlations were computed to determine the relationship between baseline CSI scores and functional change (PSFS).

Results

All variables were normally distributed. FTSS test significantly improved following the

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programme ($t(10) = -4.59, p = < 0.001$) WOMAC Pain showed statistically significant improvements ($t(18) = -2.05, p = < 0.05$) WOMAC function showed improvements, although not statistically significant (baseline = 28.8, immediately post = 26.8, 6 months post = 26.7) PSFS scores showed statistically significant changes from baseline to post programme ($t(18) = 4.55, p = < 0.000, t(18) = 3.38, p = < 0.003$). There was a strong association between patient's functional change, as measured by the PSFS and high CSI scores ($R=0.60, p = 0.03$). I am currently assessing the outcomes at 6 months post intervention which will be available for the ISCP Conference.

Conclusions

The twice-weekly exercise and educational programme results in meaningful clinical improvements in pain and function for individuals with a diagnosis of hip and knee osteoarthritis. The results also suggest that patients with symptoms of pain sensitisation may be more receptive to functional change following an multifaceted intervention. Retention of these improvements at 6 months post programme is currently being evaluated and will be available for the ISCP Conference.

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P13 WORK PARTICIPATION OF PEOPLE WITH MUSCULOSKELETAL DISORDERS IN IRELAND: A QUALITATIVE MULTI-STAKEHOLDER ANALYSIS

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Objectives

Musculoskeletal disorders (MSD's) are a leading cause of work disability. Good work offers many potential benefits to employees with MSDs. Understanding the perspectives of all the players involved in helping people with MSD's to stay at, return to and remain in work will advance understanding of work related interventions and services. Given the varying health and social insurance systems across international contexts there is a need to develop contextually specific knowledge. To explore in-depth the perspectives of multiple stakeholders involved in helping people with MSD's stay at, return to or remain in work.

Method

In-depth qualitative interviews were completed with people with MSD's ($n=12$), health professionals ($n=5$, and employers ($n=6$) to explore their perspectives on what factors support people with MSD's to stay in, return to, or remain in work in Ireland. Data were analysed using thematic analysis.

Results

Across all stakeholder groups biological factors were most implicated as the reason for work absences and the resolution of symptoms was

identified as the single greatest enabler of return to work. Although pockets of good practice were identified, in the main, health professionals and employers describe uncertainty about their role and responsibilities and describe a narrow scope of practice. Patients report a mostly adversarial experience of vocational supports.

Conclusions

Irish vocational rehabilitation stakeholders do not report awareness of the complex interplay of biological, psychological and social factors influencing work participation for people with MSD's. Vocational supports and services are hampered by role uncertainty and consequentially adversarial experiences for service users.

P14 Physiotherapy Management of Pelvic Floor Conditions & Urinary Incontinence in a Day Hospital Setting

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Objectives

To promote the need for a Physiotherapist led service in the management and treatment of Pelvic Floor Conditions (PFC) and Urinary Incontinence (UI) in a Day Hospital (DH) setting.

Method

A Physiotherapist with interest in Pelvic Floor Conditions (PFC) and Urinary Incontinence (UI) up skilled by attending relevant CPD courses. In 2013, a service was set up and led by this Physiotherapist. Two referral pathways and forms were created. Internal referral (IR) forms were used for attending DH patients. External

referral (ER) forms for non-attending DH patients. Patients 65 and over (≥ 65) had direct access and could self refer. Patients under 65 (<65) had to be from the local primary care area - North West Dublin (NWD), were not pregnant and had a clear six week post natal check. The description of service in the form of information leaflets and flyers were sent to Public Health Nurses, GPs, Health and Social Care Professionals to notify them of the service and referral criteria. Each referral received was logged in an excel sheet according to age, gender, referral source and reason for referral. To clarify the reason for referral, quality of life (QOL) questionnaires were sent out before an initial assessment.

Results

There was a constant increase in referrals each year. In 2013, 20 patients (100% Internally referred (IR) were seen). 2014 = 33 patients (IR:93.9%, externally referred (ER) :6.1%). 2015 = 78 patients (IR:47.4%, ER:52.6%). 2016 = 88 patients (IR: 40%, ER:60%). 2017 = 124 patients (I.R:60%, ER:40%). The service saw more females each year compared to males. Of the referrals in 2013 Females (F): 100%, Males (M):0%. 2014 (F=78.8%, M=21%); 2015 (F=93.6%, M=6.4%); 2016 (F=81.8%, M=18.2%); 2017 (F=86.3%, M=13.7%). The service was originally geared towards only ≥ 65 s but due to an increase in demand and or need in the <65 s, the criterion was changed to meet this group. <65 s in the local primary care area (NWD) the physiotherapist was under . In 2013 ≥ 65 s = 100%, <65 s = 0%. 2014 ≥ 65 s = 87.9%, <65 s = 12.1%. 2015 ≥ 65 s = 66.7%, <65 s = 33.3%. 2016 ≥ 65 s = 60.2%, <65 s = 39.7%, 2017 ≥ 65 s = 70.7%, <65 s = 29.3%.

Conclusions

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There is a need for a Physiotherapy led Service in the management and treatment of Pelvic Floor Conditions (PFC) and Urinary Incontinence (UI) in a day hospital setting. Urge Urinary incontinence (UUI) has been associated with an increase risk of falls¹ in older people. All patients referred to Physiotherapy for reduced balance and mobility should be screened for UI. According to Neuman et al (2005) "Physiotherapy should be routinely implemented as a first line of treatment for Stress Urinary Incontinence (SUI) before consideration of surgery"².

P15 How do Irish Primary Care Teams collaborate and learn? What do they want out of an online Interprofessional Education Module?

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Objectives

The aim of this study is to understand the needs of healthcare professionals, regarding collaboration, education and online learning within Primary Care Teams. This needs assessment will be used to form the basis of the development of an online interprofessional education module.

Method

Qualitative analysis of semi structured interviews with Primary Care Health professionals was completed. Interviews were conducted across urban and rural primary care teams. Audio recordings were transcribed verbatim and thematic analysis was conducted.

Results

Key themes identified include: Opportunities for collaborative engagement were limited to

monthly multi-disciplinary team meetings or "chance" encounters. Professionals liked the idea of being part of a team but many felt isolated within the team. Education was often limited to minimum requirements imposed by the Health Service Executive or their professional body. Barriers to engaging in education included lack of time, opportunity, heavy workload and no cover. Online education was accepted based on previous experience of engaging in online courses and forums. Professionals liked the flexibility of doing an online course in their own time while engaging with other professionals. Technical barriers exist in some cases such as local firewalls and access to a computer console.

Conclusions

An online IPE module may provide a flexible and accessible approach for professionals to understand each other's roles and responsibilities for a collaborative approach to patient-centred care.

P16 History and profile of sports and non-sports related concussion in a student population: an investigation using the Modified Ohio State University Traumatic Brain Injury Identification Tool

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Objectives

The aim of this study was to use a validated, web-based, self-administered instrument, the Modified Ohio State University Traumatic Brain Injury Identification Tool (mOSU-TBI-ID), to examine lifetime history of

concussion/traumatic brain injury [TBI] in a population of healthy young adults. A secondary aim was to examine test-retest reliability of the instrument. Specific objectives were to:

- Evaluate lifetime prevalence and injury characteristics of concussion/TBI in healthy young adults from data collected by the mOSU-TBI-ID.
- Evaluate test-retest reliability of the instrument by re-administering two weeks after initial testing.

Method

This was a cross-sectional study with a within-participant repeated measures design, using a convenience sample of undergraduate Health Sciences students. Recruitment and testing took place at Trinity College Dublin from February to April 2018. The primary outcome measure for this study was the mOSU-TBI-ID, an instrument developed based on the original interviewer-administered OSU-TBI-ID. Both the original and modified versions of the tool have been validated in previous studies^{1,2}. The tool utilizes a 'spoke and wheel' design. Participants are first asked about any lifetime occurrence of injury aetiologies most likely to produce a TBI. For any injury reported, participants were asked to report symptoms of neurological disturbance and the age at which the injury occurred. The mOSU-TBI-ID was re-administered after two weeks. Study data were collected and managed using REDCap (Research Electronic Data Capture), a secure, web-based application designed to support data capture for research studies. TBI variables that have been previously validated^{1,2} for the tool were used in analysis of test-retest reliability (defined below). Intraclass correlation co-efficients were calculated for each variable.

- Injury group (most severe lifetime injury,

ranging from no major injury to TBI with LOC \geq 30 minutes)

- Worst lifetime TBI (defined by occurrence and length of LOC)

Results

N=52 completed the first survey. Mean (SD) age of participants was 22.3 (5.34) years. The lifetime prevalence of TBI (defined as a head/neck injury with associated LOC or post-traumatic amnesia) was 40.38%, with n=21 reporting at least one TBI. The median number of TBIs per person was 1 (range 1-6). 56% of males reported a TBI compared to 30% of females. The mean (SD) youngest and oldest age at injury was 12.8 (4.9) (range 4-20) years and 15.3 (5.4) (range 4-27) years respectively. Sports/recreation and falls were the most common mechanisms of injury, accounting for 56% and 24% of all TBIs reported. Of all reported injuries, 12.1% were associated with loss of consciousness (LOC). N=39 participants completed the second survey. The mOSU-TBI-ID was found to have 'good' reliability for injury group and 'excellent' reliability for worst lifetime TBI, with ICCs of 0.863 and 0.908 respectively.

Conclusions

This study demonstrated a TBI prevalence rate similar to that reported in existing epidemiological data amongst a young student population using the mOSU-TBI-ID. The mOSU-TBI-ID was shown to have good to excellent reliability for the retrospective recall of TBI severity. Future studies could validate and implement this tool in diverse cohorts as a cost-effective and scalable method to improve current estimates of lifetime prevalence of TBI. Accurate information regarding lifetime prevalence rates of TBI is vital to facilitate

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further research regarding prevention strategies and to better understand the long-term effects of TBI.

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P17 A 12 MONTH REVIEW OF THE ONLY IRISH PAEDIATRIC CONCUSSION CLINIC

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Objectives

Concussion is a traumatic brain injury caused by a direct blow to the head or the body that affects brain function. Concussions can cause many symptoms from headaches, dizziness, fatigue, fogginess, anxiety, nausea, to cognitive impairment, vestibular and balance problems. Many of these symptoms can be treated by physiotherapy and can result in a successful outcome and return to full activity. Concussions can occur in a sporting context but also most commonly occurs in children in a playground setting or in school. In 2016 Dr. Niamh Lynch Paediatric neurologist consultant along with the physiotherapists in the Bon Secours established the first and only paediatric concussion clinic in Ireland. Our treatment model follows the world leading model in treatment of concussion from

University of Pittsburgh Medical Centre (UPMC). They divide concussion into 6 different subtypes of concussion, vestibular, ocular, anxiety, fatigue, cervical and cognitive. This subdivision of concussion allows a more personal individualised tailored program to each individual patient.

Method

An audit was conducted looking at the first 12 months of the paediatric concussion clinic, analyzing the data, especially looking at the number of patients, age ranges of patients, mechanism of injury, mean treatment time to recovery, subtype of concussion and primary referral source. All data was collected and analysed using Microsoft Excel.

Results

In the first 12 months 36 patients were seen in the clinic. 58% were males and 42% females. Average age was 14 years, with an age range from 6 years to 20 years. The primary mechanisms of injury were rugby and GAA both at 25%, next was falls (19%), soccer (8%) and faints (6%) while other mechanisms were 17% which included horse riding, school P.E., car accident, basketball or a blow to the head. The mean number of treatments to discharge were 2 treatments. When subtypes of concussion was analysed, 30% of the patients had a primary vestibular component to their concussion, migraines and ocular problems were 29% and 25% respectively where the remaining percentages comprised of anxiety, cervical and cognitive and fatigue subtypes as defined by UPMC. Primary referral source revealed that our paediatric consultant (72%) was our primary referral but other referrals were received from G.P.s (11%), A&E and team doctors (17%).

Conclusions

Sieger et al reported that 70% of concussions reported in the US were between the age range of 10 to 19 years. In 2016 we established the first and still only dedicated paediatric concussion clinic in Ireland. In the first year we had 36 patients. Current evidence recommend a multi disciplinary approach in the management of the concussion symptoms (Broglia et al 2015). In the Bon Secours Hospital we offer a unique approach to treatment of paediatric concussion involving both doctors and physiotherapists, addressing all areas from vestibular, ocular, cognitive, sleep disturbance and exercise rehab where physiotherapy is the key component to the clinic. The service is offered to recreational children but also to high level athletes. From its conception in 2016 the clinic is continuing to grow and expand to meet the needs in the treatment of concussion. We now are accepting adult patients under the guidance of our adult neurologist consultants. Within the first nine months post audit 60 patients have been seen in the concussion clinic. We have now also incorporated neurocognitive testing as part of our assessment too. As the clinic continues to grow further research may look at time of concussion to referral to clinic and further analyse the subtypes of concussion and mechanisms of injury.

P18 Application of the CARE Patient Feedback Measure as a patient experience measure within the inpatient physiotherapy rehabilitation service of the Mater Misericordiae University Hospital

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Objectives

The aim of this study is to examine the feasibility

of applying the CARE Patient Feedback Measure (<http://www.caremeasure.org/>) as a patient experience measure within the inpatient physiotherapy rehabilitation service of the Mater hospital (MMUH). This information will allow the inpatient physiotherapy rehabilitation service to benchmark their empathic performance with their peers. The study endpoint will ascertain if the CARE Patient Feedback Measure is a feasible tool to measure patient experience within the inpatient physiotherapy rehabilitation service of the MMUH.

Method

Each participant will be given the Patient Information Leaflet and the Consent Form by the co-investigator. Written consent will be obtained the following day by the co-investigator. On obtaining informed consent, a hard copy CARE Patient Feedback Measure questionnaire will be provided to each participant. The study will be explained in full by the co-investigator to the participant and next of kin if appropriate, including written information. The co-investigator will collect the completed CARE Patient Feedback Measures approximately 1-3 days after issuing it. The co-investigator proposes to recruit, administer and collect the CARE Patient Feedback Measure from a convenience sample of 50 consecutive patients in their first week of physiotherapy intervention in the inpatient physiotherapy rehabilitation service of the MMUH. Anonymised data will be entered & collated by the co-investigator using Microsoft Office Excel 2010. Only the principal investigator and co-investigator will have access to this data. Data will also be stored in the secure database of the CARE Measure website. This database provides a method of entering CARE Patient Feedback Measure data on-line, and receiving feedback

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which will compare CARE Patient Feedback Measure scores with other physiotherapists.

Results

What areas are we performing well? Really listening (paying close attention to what you were saying; not looking at the notes or computer as you were talking) - 38% scored Excellent Showing care and compassion (seeming genuinely concerned, connecting with you on a human level; not being indifferent or "detached") - 42% scored very Good Making you feel at ease (introducing him/herself, explaining his/her position, being friendly and warm towards you, treating you with respect; not cold or abrupt) - 50% scored Excellent Being positive (having a positive approach and a positive attitude; being honest but not negative about your problems) - 40% scored Very Good Areas to improve? Helping you to take control (exploring with you what you can do to improve your health yourself; encouraging rather than "lecturing" you) - 12% scored Poor Being interested in you as a whole person (asking/knowing relevant details about your life, your situation; not treating you as "just a number") - 10% scored Poor Letting you tell your "story" (giving you time to fully describe your condition in your own words; not interrupting, rushing or diverting you) - 14% scored Fair Making a plan of action with you (discussing the options, involving you in decisions as much as you want to be involved; not ignoring your views) - 8% scored Poor

Conclusions

The CARE Measure is a useful tool to measure patient experience. This initiative was used as a quality service development and formed part of the Mater hospitals quality service dashboard to promote the department to our service

users.

P19 Evidence Based Practice during Physiotherapy Clinical Placement: The impact of the Modified Fresno Test.

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Objectives

The Sicily Statement on Evidence Based Practice (EBP) states that healthcare curricula should include formal assessment of EBP knowledge and skills (Dawes et al 2005). The objective of this study was to assess the students ability to retrieve best available evidence for the treatment and management of their patients following the introduction of the Modified Fresno test.

Method

The Modified Fresno Test of EBP (Tilson 2010) was introduced into the UNIVERSITY COLLEGE DUBLIN BSc physiotherapy curriculum in 2016. To measure its impact, stage 3 students were asked to give written justification for their management of patients during clinical placement, by referring to best available evidence (BAE). Their responses were then compared with BAE retrieved by the authors. The proportion of students who were able to acquire, appraise and apply BAE to their practice was then compared with the proportion of students who were able to do this, prior to the introduction of the Modified Fresno Test (D'Arcy and Waters 2014). Ethical exemption was granted from UNIVERSITY COLLEGE DUBLIN Ethics Committee (LS-E-17-04).

Results

Eighty percent (37/46) of the 2016 cohort and 83% of the 2017 cohort (40/48) quoted BAE to support practice during clinical placement. This compares favourably with the pre-Fresno Test 2012/2013 stage 3 BSc physiotherapy cohorts, 29% of whom were able to acquire, appraise and apply BAE, as indicated by their responses to the same question ³.

Conclusions

The Modified Fresno Test of EBP had a positive effect on students' ability to retrieve, appraise and apply BAE during clinical placement.

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P20 A Pilot Study of a Weekly Feedback Form for Clinical Placement

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Objectives

The overall aim was to evaluate students and educators perceptions of a weekly feedback form during clinical placement.

- To review and revise the current TCD feedback form used during clinical placement;
- To evaluate students and educators perceptions of usability and utility of the feedback tool;
- To estimate the impact of using a structured feedback process associated with the form.

Method

In 2017, the Discipline of Physiotherapy Practice Education Team revised their existing feedback form adding a column to allow for students and educators to raise concerns, a tick box to ensure the feedback is linked with placement objectives, an agreed review date and a box to date the form. During 2017-2018 a pilot study of the revised feedback form (5 Minute Feedback Form (5MFF)) was undertaken across 20% of TCD clinical sites. The survey included 3rd and 4th year students and their supervising educators. A questionnaire was developed to assess the students and educators perception of the form's content, usability and the feedback process it facilitated. After the end of a clinical placement, students and educators were given an anonymous questionnaire by a research assistant. Return of the form was deemed to be consent for participation in the study.

Results

Four placement sites were audited with 24 students and 20 practice educators participating. Over 90% of students and educators had used the 5MFF. Average previous placement use was 2.4 (±1.2) placements for

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students and 6.3 (± 6.4) for practice educators. Both students and educators positively evaluated the 5 Minute Feedback Form in terms of its content, usability and the structure it provided to the feedback process. Positive themes that emerged included that the form: provided a prompt for discussion, reflection and planning for learning; was useful for setting expectations; increased opportunities for communication with educator; was a useful tool to ensure the student and educator were similarly focused and was helpful to structure more formal feedback on a weekly basis. Challenges identified included scheduling a time to complete the feedback form and having to encourage some students to complete the form.

Conclusions

This weekly feedback form gave structure to the feedback dialogue, assisted students to initiate feedback conversations and develop reflective practice. A structured brief feedback session can also help facilitate early detection of concerns by both educator and student.

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P21 Book to Bedside

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Objectives

In an era of increasing accountability of healthcare providers Evidence Based Medicine (EBM) provides a useful frame-work within which to work. It is well accepted that EBM can enhance the proficiency of physiotherapists' clinical practice by producing the most appropriate and effective service. Despite the clear benefits of EBM, its uptake within physiotherapy has been inconsistent in quality (Scurlock-Evans et al 2014). Olsen et al. (2014) found associations between the level of EBM exposure and physiotherapy students' EBM behavior, for example their ability to search for and critically appraise research evidence. In 2017, Two Practice tutors in St.Vincent's University Hospital (SVUH) were introduced to Oxford's Centre for Evidence Based Medicine during an immersion workshop into the practice of Evidence-Based Medicine. It highlighted that clinicians need to be evidence based in their practice so students should be taught the skills to carry out focused literature searching and rapid critical appraisal. This initiative was designed to complement a University College Dublin BSc Physiotherapy curriculum change in stage 2, whereby 4 hours of teaching of rapid literature retrieval and rapid critical appraisal were introduced. To promote the practice of EBM on clinical placement we undertook the following:

- 1) Provided tutorials to stage 4 physiotherapy undergraduates focusing on systematic literature retrieval and rapid critical appraisal.

2) Developed students' ability to formulate a focused clinical question using the PICO (Population, Intervention, Comparison, Outcome) format.

3) Provided tools to help approach critical appraisal systematically and rapidly.

4) Developed a questionnaire to ascertain students' opinions on the process and analysed results.

Method

Fifteen stage four physiotherapy undergraduates took part in this pilot study. Ethical Exemption was granted by UNIVERSITY COLLEGE DUBLIN (Research Ethics Exemption Reference Number (REERN) is: LS-E-18-73-Darcy-Waters). Four hours was dedicated to delivering tutorials. The evaluation feedback form was developed by two practice tutors in SVUH. Provision was made for further comments if students wished to develop their responses. Consent was obtained and questionnaires were administered and collected after completion of the clinical placements.

Results

73% response rate. 91% of students strongly agreed that the teaching sessions improved their ability to use the PICO format and improved their evidence base searching. Tutorials on EBM should be incorporated into clinical placement. All students either agreed or strongly agreed that the tutorials improved their critical appraisal skills which therefore helped them manage their patients more effectively.

Conclusions

Dedicating time on clinical placement to teach systematic literature searching and rapid critical

appraisal has a positive effect on undergraduates ability to search for evidence. Affording students an opportunity to practice EBM enhanced patient management. After discussion with colleagues from other hospital sites facilitating formal student EBM workshops with the incorporation of a questionnaire identifying students knowledge behaviours and attitudes towards EBM would enhance this study further. It was also recognised that perhaps the introduction of such tutorials should be incorporated at an earlier stage in the undergraduate curriculum. A Cross site larger study is currently underway.

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P22 Community based phase IV cardiac rehabilitation: a mixed methods evaluation

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Objectives

To evaluate the participation in a Community Based phase-IV Cardiac Rehabilitation (CBCR) programme on selected fitness indices and to explore participant experiences and perceived benefits in transitioning from phase-III to phase-IV CBCR.

Methods

Following completion of phase-III cardiac rehabilitation (CR), individuals were referred to a 10-week CBCR programme. Exercise classes followed the BACPR recommended structure with clinical exercise professionals running the classes and physiotherapists from Sligo University Hospital providing the medical expertise and the referrals. Cardiorespiratory fitness (6MWT), upper body muscular strength (hand grip), functional lower limb strength (timed sit-to-stand) and flexibility (sit-and-reach test) were measured pre and post the intervention with paired sample t-tests used for analysis. All participants were invited to attend a focus group on completion of the programme and thematic analysis conducted. Ethical approval was provided by Sligo University Hospital Research and Ethics Committee.

Results

Twenty-five participants (15 male, 10 female) completed the CBCR programme. There was an increase ($p < 0.01$) in functional lower limb strength (24.7 ± 5.8 v 20.5 ± 4.9 sec) and cardiorespiratory fitness (502.9 ± 58.5 v 523.1 ± 64.6 m). 20 participants (12 male, 8 female) attended the focus groups. The main themes included the strong sense of a need for CBCR programmes and the reassurance provided by the link between the hospital and community provider. Participants valued the presence of medical professionals for reassurance and queries. Although participants had different perceptions on the level of

difficulty, they wanted a variety of exercise formats including circuits, dance and gym that were fun and challenging. Physical, psychological and social benefits were described including moving from fear to confidence in their ability to exercise.

Conclusion

This study provides an important insight into the experiences, along with actual and perceived benefits, in the early transition to CBCR. Participation in a 10-week CBCR programme was effective in two out of four fitness indices with maintenance of all other measured fitness components. Consistent with these participants self-reported an increased ability and motivation to undertake more exercise.

Transition from phase-III CR to phase-IV is an important step in the long-term maintenance of positive health behaviour change (Fletcher and McBurney, 2016) as exercise levels decline when cardiac patient's cease hospital based interventions (Belleg, 2003). This study supports the referral to community based programmes as a viable next step following discharge from phase-III CR.

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P23 Audit on assessment and teaching of getting up from the floor and preventing consequences of a long lie

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Objectives

Older people who are unable to rise from the floor risk having a long lie resulting in potentially devastating consequences such as pressure sores, pneumonia, dehydration, increased hospital re-admissions and increased morbidity (Tinetti et al., 1993). Guidelines recommend that older individuals should have a strategy in place on how to cope after a fall including summoning help and preventing a long lie (AGILE, 2012). Where possible, individuals should be taught how to get up from the floor. The main objectives of the audit are:

- To determine if patients are asked about their ability to get up from the ground and what they do in the event of a fall.
- To establish if patients are assessed on their ability to get up from the floor and if any teaching on how to do so is provided.
- To ascertain if patients are provided with a strategy on what to do in the event of a fall and how to prevent consequences of a long lie prior to discharge.

Method

A random selection of 30 medical charts were selected from an inpatient geriatric rehabilitation ward and an outpatient day hospital department treating over 65's as well as from an inpatient stroke rehabilitation ward (18+) from the period March 2016-March 2017 inclusive. Randomisation was conducted using a randomisation tool online. The physiotherapy notes were screened using a 6-item descriptive scale derived from the guidelines created by

this author which assessed for documented evidence of the objectives outlined above.

Results

24/30 charts were reviewed and included in the audit. 6 charts were excluded as 5 were in off-site storage and the other involved an individual attending the incontinence clinic and so was not applicable to this audit. Of the 24 charts reviewed only 5 had documented evidence that the patient was asked if they could get up from the floor. There was no documented evidence that the patient was asked if they knew what to do in the event of a fall if unable to rise. Only one chart had evidence that the patient was partially assessed on getting up from the floor and no patient was taught how to get up from the floor. Only 3/24 charts had documented evidence that both written and oral advice were provided on what to do in the event of a fall and how to prevent the consequences of a long lie.

Conclusions

This audit highlighted the deficits in physiotherapy assessment and management of how patients can manage post fall in order to avoid consequences of a long lie and spend less time on the floor. As a result of the above findings, both the inpatient and day hospital physiotherapy assessment forms were amended to include questions regarding patient's ability to rise from the floor and how they would manage if unable to rise. In addition to this, a discharge summary sheet was created which requires details on whether the patient was assessed on getting up from the floor and evidence that written and oral information was given on what to do in the event of a fall. In 3 months time I will re-audit to examine the effectiveness of these implemented measures.

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P24 An evaluation of the effectiveness of a telephone assessment and advice service within an ED Physiotherapy clinic

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1. Mercy University Hospital, Cork, 2. Department of Allied Health, University of Limerick

Objectives

Emergency departments (EDs) are one of the main providers of treatment for musculoskeletal conditions, with early access to physiotherapy strongly advocated for within the Irish Health Service Executive (HSE) National Emergency Medicine Programme (2012). However, timely access is a longstanding issue, resulting in increased non-attendance rates. In an attempt to meet these challenges, a physiotherapy-led telephone assessment and advice service was proposed, rather than the usual face-to-face care pathway. This model of care has been established across many regions in the UK and appears to be as clinically effective as face-to-face physiotherapy within a primary care setting, with shorter waiting times and reductions in non-attendance rates also illustrated (Salisbury et al. 2013). Furthermore, qualitative data suggests service user acceptability (Pearson et al., 2016). However, to date, this model of service delivery has yet to be evaluated within either the Irish healthcare system or physiotherapy ED setting. Therefore the aim of this study was to evaluate the impact of a telephone assessment and advice service on waiting times and non-attendance rates.

Method

For this single-site cross-sectional three-month pilot, adults (aged ≥ 18 years of age) were recruited if following their attendance at the ED at Mercy University Hospital, Cork, Ireland, physiotherapy was deemed appropriate. The

first treatment option was a telephone assessment and advice service, while the alternative was a face-to-face consultation. The primary outcome measures were non-attendance rates (%), wait time to first physiotherapy contact (days) and number of physiotherapy contacts. Data analysis was descriptive using Microsoft Excel.

Results

Ninety four patients were referred to the telephone assessment and advice service, while twenty five patients have been referred to usual care. Of those that have opted for the telephone assessment and advice service, 34% (n=32) made contact with the service. These patients had fewer appointments (average 2.16 v 2.6), a shorter wait time (average 6.19 v 28.8 days) and reduced non-attendance rates (5.9% v 20.9%), compared to the usual care group.

Conclusions

This quality improvement project reduced non-attendances and provided faster access to ED physiotherapy, utilising resources more effectively and efficiently, compared to usual care. However, a large scale prospective study is warranted to confirm these findings.

P25 Preoperative High Intensity Interval Training in patients scheduled for colorectal and thoracic surgery: The PHIIT trial

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1. Trinity College Dublin, 2. Saint James's Hospital

Objectives

Patients with lower levels of cardiorespiratory fitness, are at increased risk of postoperative complications, prolonged length of stay and mortality (Moran et al., 2016a). Preoperative exercise interventions can improve postoperative outcome, however current moderate intensity exercise programmes are longer than the standard colorectal and thoracic surgery pathway (Moran et al., 2016b). High intensity interval training (HIIT) produces greater improvements in fitness than moderate intensity exercise, however adherence rates of high intensity exercise interventions are low (Liou et al., 2015, Carli et al., 2010). The aim of this study is to assess the feasibility of a HIIT programme prior to colorectal and thoracic surgery.

Method

Patients scheduled for colorectal and thoracic surgery were recruited. All patients underwent a HIIT programme prior to surgery. Patients baseline cardiorespiratory fitness was assessed via cardiopulmonary exercise testing pre- and post-intervention prior to surgery. Postoperative complications, length of stay and 30-day mortality were recorded.

Results

A total of 20 patients were recruited (recruitment rate: 39.2%). Patients performed a median of 8 sessions (range 2-11) over a median of 19 days. Adherence and compliance rates were 84% and 88%, respectively. There were no adverse events associated with the exercise intervention. Furthermore, there was a significant improvement in cardiorespiratory fitness as measured by ventilatory threshold (VT) (10.35 vs. 11.80 ml/kg/min, $p=0.003$) and

VO_2 peak (15.32 vs. 16.89 ml/kg/min, $p=0.023$) after a mean of 7 (SD: 3) HIIT sessions.

Conclusions

The PHIT trial demonstrated a preoperative HIIT programme was safe and had high adherence and compliance rates. Furthermore, there was a significant increase in cardiorespiratory fitness warranting the need for further RCT's to validate the efficacy of a preoperative HIIT programme to increase cardiorespiratory fitness.

P26 The Wait Is Almost Over' – Cost Neutral Reductions in Wait Times in Primary Care Physiotherapy

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Objectives

The aim of the study was to reduce Physiotherapy Wait Times (Arklow Primary Care, Wicklow CHE) from 32 weeks to 12 weeks within 10 months (November 2016 – August 2017). To achieve the aim of reducing physiotherapy wait times, two objectives were proposed: (1) to directly increase capacity within the service (i.e. increase number of new patients treated) (2) to indirectly increase capacity (via reduction of waste and error within service, hence increasing clinical time available to treat patients).

Method

In order to directly increase capacity within the physiotherapy service, review of patient appointment scheduling with colleagues was performed. Agreement re increasing efficiency around scheduling of patient appointments and protection of new patient slots to ensure set

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number of new patients treated weekly, was made. Parity of caseload, transparency and accountability were all emphasised, with processes put in place to ensure same. In order to indirectly increase capacity, identification of areas of waste and error were made, and solutions proposed. These included, increased use of administrative staff to schedule patient appointments and perform administrative tasks previously performed by physiotherapists, thereby allowing physiotherapy staff increased time to focus on clinical service delivery. Identification, streamlining and documentation of 'Handling of Physiotherapy Patient Record' process eliminated physiotherapy referrals being mislaid, which had happened prior to development of this process. A Patient Information Leaflet (with attendance policies included) was developed and professionally published to increase patient awareness of attendance policies. This Patient Information Leaflet was provided to each new patient with verbal reminders re attendance policies; these policies were adhered to, by all of the physiotherapy team. Physiotherapy Sites Catchment Area Document was updated and given to SOR's to help them direct referrals to correct physiotherapy sites, thus reducing time expended by physiotherapists redirecting incorrectly directed referrals to correct physiotherapy sites.

Weekly physiotherapy meetings were introduced where operational issues and strategic planning of the service take place, which allows for a more responsive and team-driven service. Capacity prediction and profiling of patient cohorts were performed to allow us to anticipate the changing needs of the service and inform service decisions. Data was collated from the excel physiotherapy waiting list. Measurement of change was made through

reviewing (i) physiotherapy wait times and reviewing (ii) number of patients waiting for physiotherapy, on excel waiting list at end of each month.

Results

Wait times reduced from 32 weeks to 4 weeks from November 2016 to August 2017 despite no increase in staffing or reduction in volume of referrals accepted compared to the same time-frame of the previous years. Number of patients on waiting list reduced from 213 patients (Nov 2016) to 34 patients (August 2017). Sustained reduction in wait times continue 9 months post completion of project, with current wait times of 7 weeks (may 2018) despite reduction of staffing by nearly 30% and increase in referrals accepted by > 20%.

Conclusions

Tackling extended waiting lists continues to be a key priority within the HSE. This is a concrete example of a significant reduction of wait times without increase in resources and within a short time frame. This is also replicable in other physiotherapy sites, certainly within Wicklow CHE where extended waiting times, for access to physiotherapy continues to be a concern.

P27 Efficient Supply Chain Management, Stakeholder Satisfaction and Patient Outcomes in a Military Physiotherapy Service.

Ms. Eimear Ní Fhallúin¹, Mr. Patrick Walsh¹
1. Defence Forces Physiotherapy

Objectives

In order to succeed in business performance, Defence Forces (DF) Physio must satisfy Department of Public Expenditure and Reform and Department of Defence (DoD) in relation to financial performance[2]. In order to fulfil DF

and DoD healthcare needs, DF Physio must provide a quality service as outlined in the National Standards for Better, Safer Healthcare (NSBSH)[3], within the military setting of the DF and in-keeping with its leadership values[4].

The main aim of this project was to ensure that DF Physio provided high quality Healthcare (HC) to members of the DF. A number of key objectives were completed in order to achieve this. DF Physio has designed and implemented a System of Care incorporating aspects of:

- 1) Injury surveillance to monitor population health attendance and outcomes as recommended[17]
- 2) Efficient SCM practices such as lean and agility.
- 3) Patient feedback in line with patient-centered care[18, 19, 20],
- 4) Budgetary monitoring to satisfy departmental needs[21].

Method

Service metrics are recorded by practitioners on a weekly basis and recorded using Microsoft Excel software. These are analysed centrally to measure service demand fluctuations, practitioner work-rate, non-attendance rate (DNA), Late- Cancellation and Short-Fill Appointment rates. This forms a portion of the practitioner performance-accountability structure[25].

Results

1) DF Physio recorded value-savings of €132,155.17 in Year 1 and €86,393.84 in Year 2 of operations. A comparative outsourced physiotherapy cost on average €531,278 per year from 2010-2012 with an average output of 12,290 appointments.

2) DF Physio has outputs on average of 9,172 appointments annually and 1,163 reconditioning class attendances.

3) DNA rate reduced from 852 to 616 DNAs in Year 1 and 2, at a value-loss of €38,195.16 and €27,660.11 respectively. Year 2 reduced DNAs to a value-recovery of €10,535.05. 4) DF Physio recorded a value-recovery of €6,545.18 in short-fill appointments, accounting for 42.4 % of late cancellations over a period of six months measured.

5) Patient satisfaction was recorded as an average of 92% across twelve criteria. Outsourced patient satisfaction was recorded as an average of 82% based on the Patient Survey.

6) Medical Corps feedback was found to average 94% based on the National Standards for Better, Safer Healthcare and objectively scored 79% for completion of these criteria.

7) DF Physio monitors service demand, throughput and fluctuations; and adapts operations and management depending on the circumstances.

8) DF Physio monitor population health parameters through Clinical Auditing using the Injury Surveillance System.

9) DF Physio has recorded that students on average increase the provision of appointments by 45%. The DF Physio Patient Feedback was conducted during student placements and has resulted in 92% satisfaction. DF Physio has also implemented Student Clinical Audit of placement exposure experience.

10) Injury Surveillance System results:37% of patients received a small benefit of +1 Function and -3 Pain. 50% a moderate improvement of +2/3 Function and Pain Loss (-4). 12% had a large improvement with a Function Gain of +4 and Pain Loss (- 5).

Conclusions

There appears to be a positive relationship between effective and efficient SCM and higher healthcare quality, as measured against the NSBSH and using patient feedback; and at lower cost. Operation metrics can be used as a 'live' service monitor to analyse for fluctuations in demand, practitioner work-rate, DNAs, Late-Cancellations and Short-Fills. It should be a service imperative to minimise DNAs and to short-fill late cancellations to avoid operational and value-loss to the service.

P28 Ownership and Use of Electrotherapy Modalities in Public Outpatients Physiotherapy Departments and Private Practices in the Republic of Ireland

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1. Trinity College Dublin

Objectives

Background Electrical currents have been used therapeutically for a very long time. The ancient Egyptians used electric eels in the treatment of gout and headache Frampton, (1988). Later, Melzac and Wall (1989) presented the pain gate theory which provided a rationale for using electro-physical agents. The pain gate proposes that stimulation of large fibres blocks transmission in the smaller slower pain fibres. The range of electro-physical agents (EPAs) has increased over time however use of EPAs in physiotherapy treatments has been debated in recent years. Information on ownership and use of EPAs in the Republic of Ireland is now almost twenty years old and so there is no clear picture of current practice. Objectives This study aims to establish current ownership and use in public physiotherapy outpatient departments and

private practices in the Republic of Ireland. The objectives were to establish what equipment was owned, what is owned but not used, what modalities are frequently used and what modalities are identified as desirable to purchase. Furthermore it is intended to compare ownership and use between private practice and public outpatients departments.

Method

A cross-sectional anonymous questionnaire previously designed by Pope et al. (1995) and subsequently used by Cooney et al. (2000) was utilised. It was distributed online (via Google Forms), to private practices of members of the Irish Society of Chartered Physiotherapists (n=171) via the secretary the group, and to physiotherapy outpatient departments of all Health Service Executive hospitals (n=53) via the Physiotherapy Managers.

Results

An overall response rate of 48.8% was obtained with 31% (n=53/171) responses from private practices and most of the public hospitals responding (N=50/53). Therapeutic Ultrasound (US) (87.38%) is the most commonly owned modality, followed by Transcutaneous Electrical Nerve Stimulation (TENS) (85.43%) and Neuromuscular Electrical Stimulation (NES) (69.90%). When respondents were asked about which modalities they used TENS (77.67%) was used by the biggest number of physiotherapists, followed by US (68.93%) and NES (64.08%). As expected public physiotherapy outpatients had a larger range of EPA's and the range included modalities not in existence in private practices such as Shortwave Diathermy and Pulsed Shortwave Diathermy (the latter was owned by one of the private practices). The only modality owned by more private practices than public outpatients was Interferential Therapy. The

modalities used most often in both public hospitals and private practice is Ultrasound and Hydrocollator packs. Cryotherapy Ice chips are used by all private practitioners who own it but only by 36% of those with access in the public departments. Shock wave therapy is identified as a modality that 24% of respondents would wish to purchase. Ethical Approval was granted by Trinity College , School of Medicine , Ethics committee, No:20170602References Frampton V (1998) "Transcutaneous electrical nerve stimulation and chronic pain" in Wells PE, Frampton V and Bowsher D (eds) Pain Management and Control in Physiotherapy, Heinmann, London. Melzac R, Wall P (1989), The Challenge of Pain, 2nd edition, Penguin Books.

Conclusions

Electro-physical agents are still widely owned, however overall ownership does not dictate usage and overall usage appears to be in decline. As a profession committed to evidence based practice, more high quality research is needed to assess the future role, if any, of electro-physical agents in interventions employed by physiotherapists.

P29 The Role of Acupuncture in Upper Limb Complex Regional Pain Syndrome: A Retrospective Patient Evaluation.

Ms. Patricia O'Gorman¹, Dr. Dominic Hegarty¹
1. Cork University Hospital.

Objectives

Complex Regional Pain Syndrome (CRPS) is a painful and highly disabling disorder that presents a substantial treatment challenge to the multidisciplinary team. Physiotherapy in conjunction with occupational therapy and pain management play key roles in rehabilitation of CRPS in the South Infirmary Victoria University

Hospital (SIVUH). Acupuncture was offered as an adjunct modality in SIVUH in recent years for CRPS patients showing a poor response to conventional evidence-based care. The role of acupuncture in CRPS has not been characterized. This study aimed to retrospectively evaluate patients' perception of outcome following acupuncture for CRPS with a view to incorporating acupuncture as a standard treatment modality for this condition in SIVUH.

Method

Ethical approval for this study was granted by CREC (the Clinical Research Ethics Committee of the Cork Teaching Hospitals). All patients diagnosed with CRPS of the upper limb (using the Budapest Criteria) who had received acupuncture between 2013 - 2017, were invited to complete a retrospective patient satisfaction questionnaire. Current pain intensity scores (VAS Pain), current Sheehan Disability Scales and questions related to clinical outcome following acupuncture treatment (sleeping, emotional wellbeing etc.) were recorded as well as overall satisfaction with treatment to evaluate patients' perception of outcome. Demographic and clinical details were retrieved from hospital medical charts. A single physiotherapist had provided all acupuncture treatments.

Results

10 patients met the inclusion criteria; 9 patients (90%) returned questionnaires for analysis (M:F = 3:6, mean age 53.3 +/- 8.3 years). Typically acupuncture was commenced 15.4 +/- 10.9 weeks post injury, with 16 +/- 9 acupuncture sessions provided. Average follow-up time was 23.8 +/- 14.1 months (range 2 – 44 months). Individuals reported being 'very much better' and 'quite a bit better' in terms of ability to sleep (89%), emotional well-being (89%), social

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functioning (78%) and improvements in pain intensity (78%) post acupuncture. Overall patient satisfaction with acupuncture treatment was high with all patients reporting benefit from acupuncture; all would recommend acupuncture to family members or friends; all would receive acupuncture treatment again.

Conclusions

Despite the limitations of a retrospective design, possible response bias, and overlap from other therapies, results suggest that there is a role for acupuncture as an adjunct modality to conventional medicine in the treatment of CRPS. Patients' evaluation of acupuncture as a treatment modality for this challenging and highly disabling condition was positive

P30 A qualitative study of patients' experience of pulmonary rehabilitation in a large acute teaching hospital

Ms. Bróna Kelly¹, Ms. Ciara Gleeson¹, Ms. Niamh Murphy¹

1. St. James's Hospital

Objectives

The British Thoracic Society Guideline on Pulmonary Rehabilitation (PR) in Adults (2013) recommends that PR should be offered to patients with mild to moderate COPD. A further recommendation is that patient satisfaction and feedback should be sought as part of regular assessment. This study aimed to investigate patients' experiences of participating in an outpatient pulmonary rehabilitation programme (PRP) at our acute teaching hospital.

Method

A qualitative design with focus group methodology was employed. Purposive

sampling targeted patients who had completed or were recurrently participating in a PRP at the centre. A semi structured interview guide comprising of open ended questions assisting in facilitating the focus group, which was recorded using a digital voice recorder and transcribed verbatim. Microsoft Excel was used to facilitate an inductive content analysis approach, whereby data were coded and recurrent themes identified.

Results

Six patients participated in the focus group. Analysis of the data led to the identification of three overarching themes which were (i) Fear of failure to maintain habits formed after completion of PRP (ii) Empowerment through knowledge gained and the support of the staff (iii) Group work and comradery. Participants felt motivated to continue with exercise after completion of the programme however fear of transitioning from the programme emerged as a strong theme. Incorporating personalised goal setting sessions and formal follow up were highlighted as potential methods to enhance the longer term efficacy of behaviour change.

Conclusions

Experience of PRP at our centre was largely positive, with participants feeling more empowered, knowledgeable and motivated to continue with exercise. The results of this study will be used to guide further development of the PRP, particularly with a focus on equipping participants with the skills to maintain health behaviour change while negotiating the transition from exercising in a structured setting to exercising at home. Bolton CE, et al. (2013) BTS Guideline on Pulmonary Rehabilitation in Adults. Thorax;

68:ii1–ii30. doi:10.1136/thoraxjnl-2013-203808

P31 Pilot profiling study of patients referred for physiotherapy in an acute medical assessment unit (AMAU)

Ms. Ruth McMEnamin¹
 1. *St. James's Hospital*

Objectives

Elderly people are significant users of healthcare in Ireland, with those over the age of 70 years and over accounting for over 48% of total in-patient bed days. The frail elderly are at increased risk of adverse events and complications during hospitalisation¹. The aim of this pilot study was to establish the physical deficits of the elderly population admitted to the Acute Medical Assessment Unit (AMAU) according to demographics, strength and frailty and to determine a practical and efficient outcome measure in this setting to ensure appropriate care pathways were commenced in a timely manner.

Method

This was a prospective cross sectional pilot study. All patients referred to physiotherapy on the AMAU over a consecutive 4 week period were invited to participate. Those who gave informed consent underwent an assessment of hand grip strength and frailty score by a physiotherapist. Hand grip strength was measured using Camry EH101 hand dynamometer. Frailty was scored on the Rockwood Frailty Index. Demographic information for each participant was recorded. Approval to conduct the study was granted by the St. James's Hospital Research and innovation office. Data collected as part of the study was inputted onto an Excel spreadsheet for analysis.

Results

Descriptive statistics were used to present the average grip strength in male and female population over the age of 70 and the most prevalent score on the Rockwood Frailty Index. Mean age was 75.72 years. 44 participants were Female (52%) and 40 Male (48%). Female average grip strength was 14.77 Kg, (Normal values 14.7-24.5) and Male 18.86 Kg (normal values 21.3-35.1) which is below average for that age group. On the Rockwood Frailty Index 39% people scored in the non-frail category and 60% in the mild to moderately frail category.

Conclusions

Following this study, it was felt that the Rockwood Frailty Index was the most practical, time efficient outcome measure and appropriate for this acute setting. It is now standard practice to document this score in the AMAU physiotherapy assessment form. From this study it can be concluded that the majority of the patients in AMAU are in the pre frail and frail category. This information can be used to guide future service provision development and resource allocation.

P32 Chelsea Critical Care Assessment Tool (CPAx); From Intensive Care Unit (ICU) to Hospital Discharge

Mrs. Aoife Spillane¹, Ms. Laura Talty¹, Mrs. Eimear McCormack¹
 1. *Naas General Hospital*

Objectives

To introduce the CPax as a standardised outcome measure to ensure compliance of NICE CG83 in Naas General Hospital (NGH) and to

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identify the impact of CPAX ICU discharge score on discharge location and hospital length of stay.

Method

In April 2017, the CPAX tool was introduced in NGH ICU. All critical care patients who had an ICU stay greater than 48 hours and required physiotherapy were assessed using the CPAX. Each patient was re-assessed weekly and then monthly when transferred to the ward. The discharge location and the length of ICU stay was recorded for a period of 10 months from April 2017 to February 2018. Analysis of the data commenced in March 2018.

Results

Over the 10 month period, 41 patients satisfied the inclusion criteria. 32 of these patients had been discharged by February 2018 and therefore included in the analysis. CPAX scores ranged from 0-46/50, with the average being 19.75 and the median was 13. ICU length of stay ranged from 2 to 146 days. Analysis found that those trending towards a higher CPAX score on ICU discharge were discharged home. Mid-range scores trended towards increased care needs on discharge and low scores trended towards non-survival or transfer to another hospital. Analysis of the length of stay post ICU showed a low CPAX score trended towards a longer post ICU hospital stay.

Conclusions

Naas General Hospital is now compliant with NICE CG83. The CPAX tool is now part of the standardised physiotherapy assessment of a critical care patient. Patient's CPAX ICU discharge score identified those at risk of longer length of stay and further care needs. This may influence physiotherapy resource allocated for these patients.

P33 Mechanical Insufflation-Exsufflation - cough assist in Spinal Cord Injury and neuromuscular disorders - a literature review.

Ms. Mary Crowe¹
1. National Rehabilitation Hospital

Objectives

This study aims is to consider the evidence for the use of mechanical insufflation/exsufflation (MI-E) (the cough assist machine) as an airway clearance adjunct in Cervical Spinal Cord injury (CSCI). The objective is to create an evidence based document for clinicians who care for people with a secretion issue following SCI. Guidelines by Bott (2009) state: "Mechanical insufflation-exsufflation should be considered for individuals with upper spinal cord injury, if simpler techniques fail to produce an adequate effect, and where cough effectiveness remains inadequate with mechanical insufflation-exsufflation alone, combine it with manually assisted coughing".

Method

A systematic literature search was conducted using Medline, Ovid and Cinahl, seeking evidence of indications, contraindications, benefits, pressures, interfaces and times used. Inclusion criteria was CSCI and NMD with respiratory secretions. The search terms included SCI, mechanical insufflation/exsufflation, cough assist machine, tracheostomy and bench studies. Neuromuscular disorder was added due to limited studies in CSCI (4). Twenty-eight studies were identified and critically reviewed of which sixteen met the inclusion criteria. Studies included 1 systematic review (Morrow), 4 RCTs (Pillastrini, Chatwin, Chatwin, Gonçalves), 1 case report; (Marchant), 5 surveys (Garstang,

Moran, Bento, Mahede and Schmitt) 3 bench studies; (Guérin, Gomez-Merino Striegl) and 2 cohort studies (Crew, Massery). The population studied was 388 people.

Results

Evidence was found for effectiveness of MIE. MIE combined with manual assisted cough in SCI (Pillastrini et al. 2006) and MIE increased FVC 24% in experimental group with 0% in control, (Pillastrini et al. 2006). In clinically stable neuromuscular disease population PEFr increased with MI-E to 297L/min compared to baseline mean 169L/min (Chatwin et al. 2003). MI-E shortened treatment time after 30 minutes (Chatwin and Simonds 2009). A study of home MIE use in ten paediatric NMD found less hospitalisation (Moran et al. 2013). Reduced emergency department visits was in twenty-one ALS subjects (Bento et al. 2010). Pressures chosen ranged ± 40 cmsH₂O. A bench study of Gomez-Merino et al.(1999) found increased insufflation time from 2-3 seconds impacted statistically significantly on insufflation pressure, flow and volume and exsufflation volume. A bench study found that MI-E via artificial airway significantly reduced PEFr compared to control. The narrowest diameter decreased the achieved PEFr. Conclusion to achieve a specific PEFr with MI-E via an artificial airway the set pressure must be increased Guerin et al.(2011). A bench study found that MI-E via artificial airway significantly reduced PEFr compared to control. The narrowest diameter decreased the achieved PEFr. Conclusion to achieve a specific PEFr with MI-E via an artificial airway the set pressure must be increased Guerin et al.(2011).

Conclusions

There is some evidence for use of MIE in CSCl from one RCT and from a Cochrane systematic

review and 3 RCTS with neuromuscular disorders who also present with weak cough and inability to clear respiratory secretions. Clinically MI-E is effective as an airway clearance adjunct and is well tolerated by people with SCI.

P34 Guideline on Managing the Manual Handling Issues of Service Users with Bariatric Needs

Ms. Margo Leddy¹, Ms. Bríd Cooney¹, Ms. Theresa Flynn², Ms. Patricia Kenny¹, Ms. Evelyn Flavin³, Mr Padraig Glynn⁴, and Ms Genevieve O' Halloran⁵

1. National Health & Safety Function, 2. St Vincent's University Hospital, 3. CHO Area 6, 4. National Ambulance Service 5. CHO Area 2

Introduction

In 2015, the Healthy Ireland Survey reported that 60% of the population aged 15 years and over are either overweight (37%) or obese (23%). It is recognised that being significantly overweight can be linked to many chronic health conditions such as heart disease, cancers, type 2 diabetes, high blood pressure, respiratory conditions, mental health and psychosocial conditions (Department of Health, 2015). With an increase in service users with bariatric needs accessing our services, there is a need for a proactive approach to caring for this demographic profile of service users to include their manual handling requirements.

Aim The HSE aims to promote a safe manual handling and people handling culture to reflect current best practice and legislation.

Guideline Objectives

- To ensure compliance with statutory requirements and HSE Policy

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- To ensure that the risks associated with meeting the moving and handling needs of bariatric service users are assessed, managed, without compromising the dignity and safety of the client and staff involved

- To support the provision of seamless care of service users with bariatric needs accessing our healthcare services.

Risk Factors

Research conducted by the Health and Safety Executive in the UK, on the bariatric patient pathway, identified the following risk factors

- Patient factors
- Building, vehicle, space and design
- Equipment and furniture (manual handling)
- Communication
- Organisational & staffing issues (HSE, 2007)

Risk Assessment

The risk factors identified above need to be considered at all stages of the bariatric care pathway in the hospital, community and home settings.

A robust risk assessment process is fundamental at all stages of the care pathway to ensure that staff and service user are not exposed to unnecessary risks (HSE,2018).

Manual and people handling risk assessments and the provision of controls are a key component of managing the risks associated with the moving and handling of service users with bariatric needs .

Bariatric Pathway Three pathways were developed that outlined how service users can be supported as they access our health services.

Outcome

The guideline aims to promote best service user care and reduce the risk of injury to employees involved in the provision of care to service users with bariatric needs. For further information,

please contact the National Health and Safety Policy Team Ph: 046 9251347 or Email :brid.cooney@hse.ie

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P35 Comparison of Student Clinical Exposure on a Final Year Musculoskeletal Clinical Placement.
Ms. Eilish Sweeney¹, Ms Laura Madden¹, Ms Eimear Ni Fhalluin²

1. University College Dublin 2. Irish Defence Forces

Objectives

Clinical education is a critical factor in ensuring competence to practice as a physiotherapist (Rodger et al., 2008). A clinical audit was

conducted by two final year, undergraduate physiotherapy students to describe and measure their clinical exposure on placement, given that they may be subject to varied experiences. There are many models available in the literature, but few address the measurement of clinical contact volume and variety of conditions seen. These measurements are essential in understanding the student experience and improving practice education clinical exposure.

Methods

Data was collected by final year undergraduate physiotherapists (X and Y) over two 20 day clinical exposure periods, at the same site, with different Clinical Educators. A surveillance tool built by Defence Force Senior Physiotherapist on Microsoft Excel software was utilised. Anonymised data was collected and stored in accordance with data protection legislation. The number of patient contacts, Numerical Pain Rating Scale, Physical Activity Scale, nature of injury, mechanism of injury and treatment techniques were recorded. These factors were then analysed on completion of the placements for converging and diverging findings.

Results

Student X saw a total of 27 patients and a total of 39 clinical contacts over 20 days. Student Y saw 25 patients and total of 43 clinical contacts over the same period.

They averaged 1.35 and 1.25 new patients per day and; 1.95 and 2.15 contacts per day, respectively.

Student X assessed and treated a variety of conditions:

Lumbar spine(16%), Knee(16%), Hamstrings(16%), Shoulder(14%), Thoracic Spine(14%), Cervical spine(7%), Calf(5%), Foot(5%) and Groin(2%).

Similarly, Student Y saw:

Knee(16%), Cervical spine(14%), Calf(11%), Lumbar spine(9%), Hip(9%), Shoulder(7%), Ankle(7%), Groin(5%), Forearm(2%) and Wrist(2%).

Student X treated more chronic cases involving deconditioning while in contrast, Student Y had more exposure to acute injuries in terms of nature and mechanism of injury.

The most frequent treatment used by Student X was 'hands-on', manual therapy while Student Y prescribed strengthening exercises more.

Conclusions

The two students involved were subject to similar clinical placements.

Both students assessed and treated a similar volume and type of patients but used varying treatment techniques. The students suggested that this difference may be attributed to different Clinical Educator guidance as well as variance in nature and mechanism of injury.

Although, Student X had more variety in their caseload it was not significant. It may be more worthwhile to consider that repetitious exposure and action is more imperative to learning. This provides students with opportunities to adjust and master their skills and become confident in specific clinical areas.

Students felt, however, that the 4 week block of placement was too short to gain suitable repetitious exposure to prepare them for their professional careers in which they will have to manage significantly larger caseloads in shorter

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periods of time. Despite this, the students highlighted that the time spent outside patient contact hours was invaluable learning time that could be used to ask questions and practice skills in a less formal environment. By lengthening placements to 6-7 weeks or by incorporating on-going placement days throughout semesters sufficient time would be provided to overcome this problem.

It is recommended that students use auditing methods such as this to objectively measure experiences and identify their own learning needs, thus encouraging active engagement in the learning process; a key element in clinical education (Kell et al., 2002).

The authors also suggest that practice-education placement providers should require students to conduct and review such audits in order to provide information to the placement site on how to programme fair and equal clinical exposure for their students.

Overall, continued use of auditing and measurement of placements will better equip students for their subsequent professional physiotherapy careers.

References

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