94.

THE METASTATIC EARLY PROGNOSTIC (MEP) SCORE: A NOVEL SCORING TOOL FOR PREDICTING EARLY MORTALITY IN PATIENTS WITH METASTATIC PROXIMAL FEMORAL (HIP) FRACTURES

Samantha Downie[1], Florence Lai[2], Judith Joss[1], Douglas Adamson[1], Arpit Jariwala[1]. [1] *NHS Tayside, Dundee, UK;* [2] *University of Leicester, Leicester, UK*

Background: The early mortality in patients with hip fractures from bony metastases is unknown. The objectives were to quantify early (30 and 90-day) mortality in patients with proximal femoral (hip) metastases and create a mortality prediction tool based on biomarkers associated with early death.

Methods: This was a retrospective cohort study of consecutive patients referred to orthopaedics at a UK trauma centre with a proximal femoral metastasis over seven years (2010-2016). The study group were compared to a matched control group of non-malignant hip fractures. Minimum follow-up was one year.

Results: 195 patients with hip metastases were compared to 192 age and gender-matched controls. 90-day mortality was 46% in patients with metastatic hip fractures versus 12% in controls (89/195 and 24/192 respectively, p<0.0001). Mean time to surgery was longer in impending versus completed fractures (9.3 and 3.5 days, respectively p<0.001). Albumin, urea and calcium were all independent predictors of mortality and were used to generate a tool for predicting 90-day mortality, titled the Metastatic Early Prognostic (MEP) score.

A MEP score of 0 was associated with the lowest risk of death at 30 days (14%), 90 days (19%) and one year (62%). MEP scores of 3/4 were associated with the highest risk of death at 30 days, 90 days and one year (56%, 100% and 100%, respectively).

Conclusions: This score could be utilised to predict early mortality and guide perioperative counselling. The delay to surgery identifies a window to intervene and correct these abnormalities with the aim of improving survival.

95.

METASTATIC BONE DISEASE, ESTABLISHING A NEW REFERRAL PATHWAY AT UNIVERSITY COLLEGE LONDON HOSPITAL, UCLH

Kahlan Al Kaisi[1], Karl Logan[2], Wael Dandachli[2], Anthea Davy[2], Abbas Rashid[2]. [1] *Royal Stoke University Hospital, Stoke on Trent, UK;* [2] *University College London Hospital, London, UK*

Background: The British Orthopaedic Oncology Society (BOOS) guideline on Metastatic bone Disease (MBD) recommends that data should be collected accurately to improve quality of care.

Method: From January to July 2016, record collected using Electronic Handover system. Cases were matched with the clinical coding list of cancer patients.

Results: 32 cases were identified during the study period; all were discussed in the daily trauma meeting and a management plan given to the referrer. Conservative treatment was decided in 23 cases while 9 patients had a surgical intervention. In the non-operative group, the reported outcome was death in 9 patients, 1 discharged back to GP, and 3 to continue orthopaedic follow up. The remainder discharged back to the referrer to continue treatment. In the intervention group, there were 2 complex primary Hip Replacements, and Intramedullary fixation in 2 femurs, 3 Humerii, and 2 Radii. Out of 306 clinical episodes recorded for theses 32 patients, only 11 were registered under orthopaedics.

Discussion: To start a new comprehensive database for MBD cases; a new referral proforma was introduced. It was made accessible on the Trust's Intranet in Word format. An email address was set up and accessed by the on call orthopaedic team. Referrals would be discussed in the trauma meeting next day. The outcome of the discussion would be documented in the form and saved in a specific folder on the orthopaedic-shared drive.

Recommendation: BOOS guideline should be followed to provide a minimum standard of practice for MBD patients.

97.

QUALITY IMPROVEMENT PROJECT ON JUNIOR DOCTORS FEEDBACK ON ORTHOPAEDIC ROTA IN A MAJOR TRAUMA CENTRE

Wajiha Zahra, Bethany Dobbin, Carolyn Chadwick. *Northern General Hospital, Sheffield, UK*

Objective: To assess frequency of cross cover of orthopaedic teams, its effects on patients' safety, senior support within the department, teaching and clinical opportunities.

Method: 20 questions questionnaire was emailed to 18 junior doctors (F1 – CT2) working in department in March'2019 and July'2019.

Results: 1st cycle highlighted increased frequency of cross cover of different orthopaedic teams.

Questions	1st cycle	2nd cycle
Frequency of cross cover other teams (6-10, 11-15 times/wk)?	22 %	11%
No. of different teams covered in 1 wk?	60% - 3 teams	30% - 3 teams
Notice given before cross cover?	40% same day	30% same day
Notified via colleague or email or rota?	55% - Rota	60% - Rota
Senior ward round on base team, daily, sometimes, once/wk?	38% - Most days	55% - Most days
Senior ward round on other teams, daily, sometimes, once/wk?	38%- sometimes	25%- sometimes
Senior support on base team, always, usually, sometimes?	44%- always	61%-always
Senior support on other teams, always, usually, sometimes?	38%- usual	25%- always
Is it difficult to get protected teaching time?	70%- Yes	
Any issues with new rota?		61%- No
Block of on call vs random on call days?		67%- Block

Blocks of on call days were introduced in the rota from Apr'19 to Aug'19. Registrar was assigned to implement teaching timetable and protected time was allocated. Whatsapp groups were introduced to improve communication and ward rounds were assigned to senior registrars.

2nd cycle results showed improvement in frequency of cross cover and senior support.

Conclusion: This project is a 1st step towards better training. It highlighted the areas for improvement and goals were set to improve things for future trainees.

98.

IMPROVING LUNG CANCER PATHWAY - THE SIGNIFICANCE OF MARGINAL GAINS

William Cullen, Elaine Teh, Andrew Low, Gianluca Casali, Douglas West. *University Hospitals Bristol NHS Foundation Trust, Bristol, UK*

Background: The National Optimal Lung Cancer Pathway (NOLCP) guidelines was published recently. The aim of NOLCP is to encourage local services to review their pathways.

We wanted to engage with NOLCP, and review our lung cancer pathway for patients with potentially resectable cancer.

Methods: We carried out a retrospective review from June to December 2017. Data was collected from hospital electronic records.

Results: The initial results showed poor compliance. We made several changes from 2-week wait (2WW) clinic:

1. Prioritizing performing transfer factor for patients with newly diagnosed, potentially radically treatable lung cancer in clinic
2. Standardising CT reporting to include staging and feasibility of percutaneous tissue biopsy in report to enable appropriate tests to be requested early

Following implementation of these changes, we carried out a re-audit from October to December 2018. Results from both audit cycles are shown below.

highlighted outliers making inappropriate referrals on the 2WW pathway. The plan was then to engage with GDPs to develop more efficient and effective referral pathways.

Data for Abstract 98

	Audit cycle 1 (n=37)		Audit cycle 2 (n=16)	
	Median (range) days	Mean±SD days	Median (range) days	Mean±SD days
2WW - CT	9 (0-34)	9±10	8 (0-48)	11±13
2WW - spirometry	0 (0-7)	0±2	0 (0)	0
2WW - TLCO	7 (0-118)	15±25	8 (0-58)	10±15
2WW - PET	15 (2-121)	28±33	9 (2-44)	15±11
2WW - decision	25 (3-125)	36±35	24 (10-46)	25±11
2WW - surgery	73 (48-88)	69±14	37 (30-55)	38±10

Conclusions: These minor amendments resulted in improvement and ultimately marginal gains from each stage resulted in a significantly shorter pathway for patients to undergo radical treatment for lung cancer.

100.

SIMULATION TO MEASURE DRUG TO PATIENT TIMES IN CATASTROPHIC HEAD AND NECK HAEMORRHAGE; CURRENT PROTOCOL VS NEW PROTOCOL

Paul Sooby, Abdurahman Tarmal, Richard Townsley. *NHS Ayrhire and Arran, Kilmarnock, UK*

Background: Catastrophic haemorrhage is a terminal and distressing complication of head and neck cancer. Patients can be prescribed anticipatory analgesia and sedation. However, there exists anecdotal evidence that these drugs may never reach the patient. We aim to record the drug to patient administration times in simulated catastrophic haemorrhage scenarios using the current NHS Ayrshire and Arran protocol and a newly proposed protocol.
Method: 32 scenarios were simulated on the head and neck ward. 16 simulations involved drawing up medications (marked saline vials) from the controlled drug cupboard. 16 simulations involved using pre-drawn up medications (containing saline) placed in a grab bag. Staff were informed of planned scenarios, and scenarios were initiated by lead investigators pulling the emergency buzzer in the ENT treatment room. Times were measured from when staff were made aware, to the saline being delivered to a cannula representing a patient in the ENT treatment room experiencing a catastrophic haemorrhage.
Results: The mean time for administration for the current policy was 124 seconds, while the grab bag was 48 seconds, P <0.01 (Wilcoxon ranked test). There was also a reduction in the variance of times when using the grab bag; 33-53 seconds vs 78-202 seconds.
Conclusion: The proposed 'grab bag' approach demonstrated a reduction in variability and overall drug-to-patient time. Nursing staff also stated that they felt the new protocol would improve patient/family experiences and improve advance decision planning. We aim to implement this new approach on the head and neck ward.

101.

LOOKING AT THE QUALITY & APPROPRIATENESS OF REFERRALS SENT ON THE 2WW PATHWAY TO THE MAXILLOFACIAL DEPARTMENT AT UNIVERSITY HOSPITAL SOUTHAMPTON SEPTEMBER 2017-AUGUST 2018

Samantha Cottam, Oliver Mitchell, Sanjay Sharma. *University Hospital Southampton, Southampton, UK*

Background: The 'two week wait (2WW)' pathway for head and neck cancer was introduced to streamline the diagnosis and treatment of patients presenting with possible cancer. Processing of patients on a 2WW pathway places considerable stress on the available resources within the NHS. We analysed the appropriateness of referrals to a single unit and

Method: A retrospective study of 500 referrals to OMFS in 2018 using the 2WW pathway were reviewed. These were analysed for quality using a 14-point scoring system looking at demographic and clinical data. The appropriateness was decided on the clinical and social history and the applicability to the use of the 2WW form. Practices with large numbers of inappropriate referrals were highlighted as outliers.
Results: Of the 500 referrals 281 were from GDPs, 209 from GPs and 10 from other referrers. The mean quality score was 6 out of 14. The number of inappropriate referrals was 301. The most common diagnosis was of fibroepithelial polyps (35 cases) and hyperkeratosis (35 cases). In 30 of the 500 referrals a malignancy was identified.
Conclusion: Amongst the 2WW referrals there were many poor quality and inappropriate referrals. Referrers who repeatedly made poor referrals may benefit from targeted training. A new referral system may be required and if this is to be developed successfully will need input from those in practice and the hospital setting.

102.

SUCCESSFUL INTRODUCTION OF A ROBOTIC MULTISPECIALTY PROGRAM AT PORTSMOUTH HOSPITALS NHS TRUST

Patricia Stevens, Mary Cordova, Mary Peckover, Samuel Stefan, Nikki Waller, Sue Twiss, Matt Smith, Jim Khan. *Queen Alexandra Hospital, NHS Portsmouth, Portsmouth, UK*

Background: Robotic surgery has gained momentum in general surgery over the last decade. Better view/instruments and full autonomy for the surgeon make this a very valuable tool for surgeons performing complex procedures. However, the safe introduction of new practice needs support from a well-functioning multidisciplinary team.
Methods: A review of robotic surgical practice was taken to understand the prerequisites, essentials of team selection, training and recruitment to provide safe surgery. A training program for the robotic surgical team was developed at Portsmouth hospital (PHT) and assessed retrospectively.
Results: Robotic surgery was introduced at PHT in 2013 - no prior staff/ team training in place. A core group of staff received system training and dry/wet lab training. A robotic surgery user group was created: all surgeons performing robotic surgery, anaesthetics lead, theatre manager, nursing lead. This led to a standard operating procedure for patient positioning and pressure points care during robotic surgery. This led to a designated robotic theatre with booking of lists by specialties. With over 1800 procedures performed in total by 4 specialty teams, there was no incidence of perioperative mortality/reported cases of emergency undocking/massive intraoperative bleeding. Since its inception, the robotic theatre team has 28 members: 12 scrub nurses of which 2 team leaders, 5 healthcare support workers and 11 surgeons.
Conclusion: Team training and recruitment remain important aspects of a successful robotic program. A systematic approach to the introduction of robotic surgery can lead to a safe practice with good outcomes, and a culture of collaborative team working.