Summary/Conclusions: In conclusion, the psychometric properties of the Greek version of TranQoL confirmed that it is valid, reliable and responsive to change. The TranQoL can be incorporated into future studies of thalassemia major in Greek patients.

E1455

BIG DATA ANALYTICS & PATHOLOGY SERVICES IN NHS: ACHIEVING STEP CHANGES IN CAPACITY

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Background: A major hospital Trust in London provides healthcare for a large population across Medicine, Surgery, Obstetrics and other specialties. Three laboratories are on sites using automated, high capacity analysers to provide pathology services much of which requires rapid turnaround. The major challenge for laboratories in this situation is centred on the high throughput tests comprising full blood count, assessment of renal/ liver function, and coagulation. To date these services have not been subjected to detailed analysis of demand, efficiency of use of analyser capacity and efficiency of physician requesting.
Aims: First to determine the factors limiting the turnaround times for routine testing throughout periods of varying demand and those factors limiting the optimum use of existing analyser resources. Second, to identify requesting practices that are inefficient or which drive the changes in demand.
Methods: A database consisting 20M data points from 1M pathology test requests, recorded over 1 year was provided including details of requester and site of request with way points defining the passage of the sample from request time through to test reporting. This allowed a map of volume and activity over time and test turnaround times identifying bottlenecks and changes in efficiency. Parameters showing healthcare professional ordering of tests, location of patient and laboratory site were also provided and analysed.
Results: Initial descriptive analysis showed 1 particular laboratory had difficulties achieving its potential capacity utilization rate and target turnaround times. Bottlenecks were clearly identified at sample entry into the laboratory and at validation of results. These resulted in build-up of samples and delays in reporting that were staggered in time: thus although the peak in TAT occurs at 4pm the extra capacity was required prior to this, revealing a negative, delayed impact of test arrival on test turnaround time. This has obvious implications for laboratory management. The fastest 10% of FBC tests were reported in 0.2hr and 80% in 1.5 hrs but the slowest 10% varied from 2-120 hours. Of 200,000 tests processed per year at one lab, 47% were ordered by clinical division Medicine, 34% Surgery & Cancer / Clinical Haematology, 15% Women and Children. Medicine was the leading requester at all 3 sites. Of 2,000 physicians, 87% order fewer than 500 tests per year. Some intensive requesting practices are probably masked by the use of common requesting codes. 61% of patients have only 1 to 2 tests per year, the proportion of patients having 100 tests per year being less than 1%. However at one site >1% of patients had >50 tests per year, identifying an intensively monitored population. Measurement of true machine capacity highlighted a large gap between current performance and maximum potential indicating that better sample profiling and management could produce savings. The maximum capacity for FBC was 420 tests per hour but the average performance was 60/hr and the peak rate of reporting only 95/hr.
Summary/Conclusions: Big data analytics and process mapping identified 2 rate-limiting steps to performance inherent in current test system: test received at lab and validation of results. Close analysis of such a large dataset indicates how we can optimise the laboratory processes and improve utilisation of current installed capacity in NHS pathology services.

E1456

THE EFFECTIVENESS OF CLINICAL TRIAGE: CLOSING THE AUDIT LOOP

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Background: In 2014-2015 there were 85 million outpatient clinic attendances in NHS hospitals across the UK with a cost to secondary care exceeding £15 billion. 25.9 million (30 percent) of these were first appointments. In 2014 we audited a 6 month period of haematology outpatient clinic referrals and established the effectiveness of clinical triage in filtering inappropriate referrals. We established that 74% of all new patient referrals were from primary care in 2014. Of the rejected referrals 96% were from primary care.
Aims: In 2015, we implemented audit guided interventions, consisting of structured consultant led primary care teaching sessions across the North West London region. These sessions were specifically designed to educate and guide primary care physicians regarding haematological symptoms and blood parameters requiring secondary care input. The intervention was made with the aim of both capturing potential haematological malignancies at an early stage and also reducing inappropriate referrals. The proposed secondary outcome of this intervention was cost efficiency saving and improvement in regional haematology care.

Methods: Data was collected retrospectively from a local clinic referral database containing information on all new patient referrals including demographics, referral reason and triage outcome. We compared data from a four month period (June to September) in 2014 with the same four month period a year later in 2015.
Results: Our data shows a 31 percent increase in monthly referrals in 2015. The mean monthly referral number increased from 169 in 2014 to 244 in 2015. Despite this we saw a reduction in the percentage of inappropriate referrals to the service. In 2014 a monthly mean of 22 percent of referrals were rejected with feedback provided to the referring clinician. In 2015 the rejected referral rate was reduced by 6 percent to a monthly mean of just 16 percent for the same time of year period. 37% of referrals were for clotting/ thrombosis, 23% potential haematological malignancy including 2 week waits and the remaining 40% general haematology.
Summary/Conclusions: Our data support the ongoing use of consultant led clinical triage and primary care education in order to reduce the significant cost burden of new patient clinics whilst remaining safe for patient care.

E1457

USE OF COMBINED ORAL ADMINISTRATION OF ANALGESIA AND ANXIOLYSIS FOR PAIN ASSOCIATED WITH BONE MARROW ASPIRATION AND BIOPSY

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Background: Bone marrow aspiration and biopsy (BMB) is central to the diagnosis and management of many haematological disorders and is a safe procedure associated with low morbidity and mortality. For adults, the infiltration of local anesthesia at the biopsy site has been used as the principal form of analgesia for BMBA. Unfortunately pain relief is often incomplete especially during aspiration of the bone marrow. In addition, pain is likely to contribute to the anxiety the patient may already be experiencing.
Aims: In this study we assessed an oral administration of analgesia (fentanil-ACTIQ) and anxiolysis (midazolam). 107 consecutive ambulatory adult patients referred for bone marrow examination were enrolled. Informed consent for the procedure was obtained from all patients.
Methods: All patients received local anaesthesia (LA) with 10 mL of injected 2% lignocaine, but 52 patients received LA alone (group A) and 55 patients LA plus 5 mg midazolam (oral administration) and 200 mcg of Fentanyl transmucoso (group B), 30 min before the procedure. The pain level was assessed with the Numeric Rating Scale which distinguishes ten levels of pain, from 0 to 10 in five times of procedure (baseline, start LA T1, aspiration T2a, biopsy T2b, five minutes after the end of the procedure T3). At the end, all were given a questionnaire about efficacy, satisfaction, comfort with three levels (1/low-2/medium-3/high).
Results: This medium values were found: at time T1 the medium level of pain was 0.87 for the group A vs 0.88 of group B, at time T2a 3,63 group A vs 3,54 group B, at time T2b 4,63 group A vs 4 group B (p<0,05), time T3 0,41 group A vs 0,16 group B (p<0.05). In addition 21 Patients, who have already undergone the procedure without sedoanalgesia, saw to prefer the new medication.
Summary/Conclusions: Our preliminary results seem interesting because underline the different subjective perception of pain in the two groups and especially show a main level of satisfaction and comfortable in our patients undergone medication with sedoanalgesia and a lower level of anxiety in view of a possible repeat of examination.

E1458

THE IMPACT OF AL AMYLOIDOSIS ON ABSENTEEISM, REDUCED PRODUCTIVITY, AND JOB LOSS

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Background: Debilitating chronic conditions and their treatments often negatively impact patient's ability to work, resulting in absenteeism, reduced productivity, and job loss. Light-chain (AL) amyloidosis is a rare disease in which misfolded light chains are deposited in tissues, which may lead to organ failure, disability, and death. Current treatments are known to affect patients' functioning and well-being, but there is little evidence to date on the impact of AL amyloidosis on patients' ability to work.
Aims: To describe the impact of AL amyloidosis on patients' work using data from qualitative and quantitative research.
Methods: Data for these analyses were collected from two phases of a broad research program on the experience of patients with AL amyloidosis. First, qualitative in-depth individual telephone interviews were conducted with 10 patients. Results are presented from coded interview transcripts that were analyzed using a grounded theory approach to identify themes. Second, a quantitative online survey including a battery of patient-reported outcome measures