## BSG 2014 abstracts

Introduction Hepatic encephalopathy (HE) is associated with high morbidity and mortality. Rifaximin-α is effective in reducing the recurrence of episodes of overt HE. The aim was to characterise the cost effectiveness of rifaximin-α versus standard care (lactulose).

Methods This economic evaluation used a Markov state transition model. The outcome was the incremental cost effectiveness ratio (ICER), derived from estimates of the cost/quality adjusted life years. The payer perspective was that of UK National Health Service. Outcome data were from two trials of rifaximin-α. Population outcome data were from a complementary study of patients with liver cirrhosis treated within the NHS. Cost data (GBP£2012) were derived from published sources. Healthrelated utility was estimated indirectly from disease-specific trial QoL data. The time horizon was five years. Costs and benefits were discounted at 3.5%. Extensive sensitivity analysis was car-

Results The average cost of the included elements of care was £15,476 in the rifaximin- $\alpha$  arm and £4,486 in the lactulose arm, a difference of £10,990. The corresponding values for benefit was 2.36 QALYs, and 1.83 QALYs per person, respectively; a difference of 0.53 units. This translated into a base-case ICER of £20,852/QALY. Key parameters that impacted the ICER included the event-free survival pattern, ranging from an ICER of £13,919 using an exponential model, to £21,425/QALY using a log-logistic model. Evaluation to 10 years resulted in an ICER of £19,122/QALY.

Conclusion Rifaximin-α in patients with liver cirrhosis was cost effective compared to standard care, reducing episodes of overt hepatic encephalopathy.

Disclosure of Interest C. Poole Consultant for: Norgine, P. Conway Employee of: Norgine;, K. Nanuwa Employee of: Norgine, B. J, oseph Employee of: Norgine, C. Bannister Consultant for: Norgine, C. Currie Consultant for: Norgine.>

PWE-154 THE FIRST EVALUATION OF THE RELATIONSHIP BETWEEN THE CHRONIC LIVER DISEASE QUESTIONNAIRE AND THE EQ-5D INDEX IN HEPATIC **ENCEPHALOPATHY PATIENTS TREATED WITH** RIFAXIMIN-A

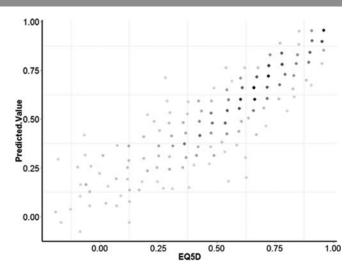
<sup>1</sup>E Berni, <sup>2</sup>C Bannister, <sup>2</sup>CD Poole, <sup>3</sup>P Conway\*, <sup>4</sup>K Nanuwa, <sup>2</sup>CJ Currie. <sup>1</sup>Pharmatelligence, Cardiff University, Cardiff, UK; <sup>2</sup>School of Medicine, Cardiff University, Cardiff, UK; <sup>3</sup>Norgine Global Health Outcomes, Norgine Ltd, UK; <sup>4</sup>Norgine UK, Uxbridge, UK

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Introduction Estimation of health-related utility is a vital component of the evaluation of relative cost effectiveness of healthcare interventions. The correlation between different measures of quality of life and health related utility in hepatic encephalopathy (HE) has not been explored. The aim of this study was to characterise for the first time the relationship between scores for Chronic Liver Disease Questionnaire (CLDQ) and health-related utility as measured by the EQ-5D index in patients with HE.

Methods Data were available from a phase three trial of rifaximin-α in patients with recurrent HE. Corresponding CLDQ and SF-36 scores were recorded at monthly visits. EQ-5D scores were derived using the SF-36 using a recognised mapping technique. Generalised, linear, mixed modelling methods were used to examine for any association in order to allow for repeated measures.

Results 202 of 299 patients with 920 corresponding observations were included. The average age of the cohort was 57 years



Abstract PWE-154 Figure 1 Observed versus predicted EQ-5D index values using generalised linear mixed modelling to allow for repeated measures.

and 133 (65.8%) were males with an average baseline MELD score of 13.8. The average time since diagnosis of HE was 25.6 months. Figure 1 illustrates the observed and predicted utility scores derived from CLDQ with an r-squared value of 0.835, indicating a strong relationship.

Conclusion This is the first time that a direct association between the EQ-5D index and the CLDQ score has been reported. The r-squared value of this association suggested that liver-related morbidity may explain the majority of differences in health-related utility in these subjects.

Disclosure of Interest E. Berni Consultant for: Norgine, C. Bannister Consultant for: Norgine;, C. Poole Consultant for: Norgine, P. Conway Employee of: Norgine, K. Nanuwa Employee of: Norgine, C. Currie Consultant for: Norgine.

## PWE-155 THE SAFETY OF ASCITIC DRAIN INSERTION IN PATIENTS WITH DERANGED COAGULATION

SK Sidhu\*, E Davies, A Turner, K Mcwhirter, A Al-Rifai. Salford Royal Hospital, Manchester, UK

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Introduction Abdominal paracentesis for ascites is not an uncommonly performed procedure. Most patients needing abdominal paracentesis have significant derangement of coagulation. We wanted to assess the safety of abdominal paracentesis in patients with significant INR elevation.

Methods 67 consecutive patients requiring abdominal paracentesis at our hospital were retrospectively analysed. Patients were placed in to 3 groups depending on the baseline INR (Group A: INR 1-1.4, Group B: INR 1.5-1.9, Group C: INR 1.9 and above). Complication data collected on all patients using a standarised profroma. All data was then entered on to a spreadsheet program (Microsoft Excel) and analysed using SPSS v22.

Results Of the 67 patients 25 (37%) had a near normal INR (group A), 32 (48%) had moderate INR prolongation and 10 (15%) had significant INR prolongation (group C). 3 patients in group C received fresh frozen plasma (FFP). Overall there was no significant increase in the frequency of Blood staining, Hypotension, Leaking drain site, Infection, Peritonitis, Perforation and Death across all 3 groups (full data and p values shown in Table 1).

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| Abstract PWE-155 Table 1 |                    |                      |                           |                |                |                |  |  |  |
|--------------------------|--------------------|----------------------|---------------------------|----------------|----------------|----------------|--|--|--|
|                          | Group A            | Group B              | Group C                   | p value        | p value        | p value        |  |  |  |
|                          | (INR 1 1.4) n = 25 | (INR 1.5-1.8) n = 32 | (INR 1.9 and above) n = 1 | (group A vs B) | (group A vs C) | (group B vs C) |  |  |  |
| Blood staining (%)       | 0                  | 3.1                  | 10                        | 1.00           | 0.30           | 0.45           |  |  |  |
| Hypotension (%)          | 20                 | 9.4                  | 30                        | 0.28           | 0.66           | 0.13           |  |  |  |
| Perforation (%)          | 0                  | 0                    | 0                         | 1.00           | 1.00           | 1.00           |  |  |  |
| Leaking site (%)         | 0                  | 3.1                  | 0                         | 1.00           | 1.00           | 1.00           |  |  |  |
| Death (%)                | 0                  | 0                    | 0                         | 1.00           | 1.00           | 1.00           |  |  |  |
| Peritonitis (%)          | 4                  | 0                    | 0                         | 0.44           | 1.00           | 1.00           |  |  |  |
| Infection (%)            | 0                  | 3.1                  | 0                         | 1.00           | 1.00           | 1.00           |  |  |  |

Conclusion The complication rate does not significantly increase with increasingly deranged coagulation. This is despite very low usage of FFP in this study. There is a trend towards an increased risk of bloodstaining and hypotension in the high INR group, which does not achieve statistical significance.

Disclosure of Interest None Declared.

# PWE-156 DURHAM METRICS TO EVALUATE EFFECTIVENESS OF A NEW CARE PATHWAY FOR PATIENTS WITH ADVANCE STAGE LIVER DISEASE (ASLD)

<sup>1</sup>S Saksena\*, <sup>2</sup>L Hammal, <sup>2</sup>C Lancaster, <sup>2</sup>M Hewett. <sup>1</sup>Hepatology, Durham, UK; <sup>2</sup>County Durham Darlington Foundation Trust, Durham, UK

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**Introduction** Patients with chronic liver disease have several unplanned admissions during their disease trajectory. We undertook a service improvement initiative to develop a new care pathway for patients with ASLD.

Methods Six month pilot of 20 ASLD patients, (≥ 2admissions in last 12 months/'would you be surprised question' with 6–12 mths prognosis/Childs C). Team of hepatologist, community matron, hepatology nurse specialist and service improvement facilitator developed 'Durham Metrics': quantitative and qualitative metrics (Figure) to evaluate ASLD pathway, on best practice, further refined with focussed discussion with stakeholders.

Results The metrics demonstrated that patient expereince prepilot was poor with multiple unplanned admissions and/or long

| Durham Metrics for Evaluating ASLD Service   | ice Patient1 | Patient 2    | Patient 3    | Patient4     |  |
|--|--------------|--------------|--------------|--------------|--|
|  | Before After | Before After | Sefore After | Before After |  |
| Best Outcome   |              |              |              |              |  |
| Registered on GP Palliative Care Register (y/n)                                    |              |              |              |              |  |
| Care Management Plan in place (y/n)  |              |              |              |              |  |
| - Emergency Health Care Plan in place (y/n)  |              |              |              |              |  |
| - Advance Care Plan discussed (g/h)  |              |              |              |              |  |
| Preferred Place of Care - Individual care wishes discussed and known (y/h)         |              |              |              |              |  |
| DNACPR in place & following patient throughout pathway (y/n)                       |              |              |              |              |  |
| Best Patient Experience  |              |              |              |              |  |
| Key point of contact known within community services (y/n)                         |              |              |              |              |  |
| Patient has chosen and discussed preferred place of care (y/n)                     |              |              |              |              |  |
| Patient information offered available to support self-management (y/n)             |              |              |              |              |  |
| Quality of life & living with ASID 'patient story' - Questionaire/Interview (tick) |              |              |              |              |  |
| Patient story outcome - broadly positive (P) or broadly negative (N)?              |              |              |              |              |  |
| Best Efficiency  |              |              |              |              |  |
| Total number of admissions for AS(D (total admissions)                             |              |              |              |              |  |
| No. unplanned admissions (sub-set of total admissions)                             |              |              |              |              |  |
| No. re-admissions within 30 days (sub-set of total admissions)                     |              |              |              |              |  |
| No. of admissions for Abdominal Paracentesis (sub-set of total admissions)         |              |              |              |              |  |
| Total length of stay (all admissions for ASLO, incl. Cirrhosis)                    |              |              |              |              |  |
| Total length of stay for Abdominal Paracentesis (sub-set of total length of stay)  |              |              |              |              |  |
| Guidelines in place to support paracentesis in non-acute care setting(s)           |              |              |              |              |  |
| Best Employer  |              |              |              |              |  |
| Skills & knowledge - gaps & training needs of Trust staff known                    |              |              |              |              |  |
| Relevant training materials produced to meet skills/knowledge gaps                 |              |              |              |              |  |
| Pro-active ASLD case management - resource gaps in primary/community care known    |              |              |              |              |  |

Abstract PWE-156 Figure 1

waits, preferred place of death was not discussed; care was not co-ordinated, and quality of life was often poor as a result. All post-pilot metrics reported significant improvements. Use of alternative community services, and shared care plans led to improved efficiency. 83% achieved their preferred place of care and death contrast to nil pre pilot.

Conclusion Key metrics of performance are essential to evaluate service improvement project. The project metrics designed for this project were able to capture changes initiated by pathway however more data and time is needed to draw statistically valid conclusions.

### **REFERENCES**

- 1 National End of Life Care Intelligence Network 2012
- 2 Deciding Right
- 3 Liver Quest

Disclosure of Interest None Declared.

PWE-157 EARLY TIPS (TRANSJUGULAR INTRAHEPATIC
PORTOSYSTEMIC SHUNT) FOR ACUTE VARICEAL
BLEEDING COMPLICATING ALCOHOLIC HEPATITIS (AH)

<sup>1</sup>S Alam\*, <sup>1</sup>E Britton, <sup>2</sup>U Shaikh, <sup>2</sup>J Evans, <sup>1</sup>P Richardson. <sup>1</sup>Gastroenterology, Royal Liverpool University Hospital, Liverpool, UK; <sup>2</sup>Radiology, Royal Liverpool University Hospital, Liverpool, UK

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**Introduction** The ideal management of variceal bleeding in the setting of acute alcoholic hepatitis is unclear. We present the outcome of this subgroup of patients in a cohort of patients treated with primary TIPS for variceal bleeding.

**Methods** A retrospective analysis on patients who had TIPS procedure performed as a primary treatment modality within 72 h of acute variceal bleeding from December 2010 to April 2013 with a minimum of 6 months follow up was performed.

Results 56 patients were included into the final analysis. In AH patients (n = 18) mean age was 48 years (30–65), mean discriminant function (DF) was 51 (24–87) and mean MELD score was 22. The 6 month mortality was 50%(9/18) with (7/9) dying within 30 days. The median HVPG (mmHg) pre-TIPS and post-TIPS were 16.5 and 6.5 respectively. In non-AH patient (n = 38) average age was 51y (25–70) mean MELD score was 14 (22–7). The mortality was 13% (5/38) at 6 months, (3/5) died by day 30. The median HVPG (mmHg) pre-TIPS and post-TIPS was 23 and 10 respectively.

Conclusion In patients with variceal bleeding complicating AH there is a higher 30 day and 6 month mortality in patients managed with a primary TIPS in comparison to patients with cirrhosis. The ideal management of this complex group remains unclear.

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