Abstract P264 Table 1

Feature and cut-off used	Death during Admission		Death within 12 months	
	P-value	Odds Ratio and 95% Confidence Interval	P-value	Odds Ratio and 95% Confidence Interval
Age > 65	0.376	OR 1.51 [CI: 0.422–5.437]	0.295	OR 1.707 [CI: 0.492–5.924]
>5 co-morbidities	0.610	OR 0.821 [CI: 0.396–1.699]	0.081	OR 0.457 [CI: 0.185–1.107]
Haemoglobin <120g/L	0.226	OR 1.40 [CI: 0.689–2.847]	0.181	OR 1.541 [CI: 0.713–3.330]
Urea >7.8 mmol	0.005**	OR 2.663 [CI: 1.312–5.40]	<0.001**	OR 3.412 [CI: 1.63–7.17]
White Cell Count (WCC) >12 × 10 ⁹ /L or <4 × 10 ⁹ /L	0.082	1.72 [CI: 0.870–3.401]	<0.039**	OR 2.034 [CI: 0.986–4.197]
New confusion	0.821	OR 0.882 [CI: 0.325–2.391]	0.030**	OR 0.347 [CI: 0.117–1.00]
Respiratory rate >20 breaths per minute	0.541	OR 1.027 [CI: 0.510–2.067]	0.441	OR 1.138 [0.542–2.389]
Pulse >90 beats per minute	0.044**	OR 1.921 [CI: 0.969–3.801]	0.030**	OR 2.132 [CI: 1.029–4.420]
Systolic BP <100 mmHg	0.439	OR 1.226 [CI: 0.455–3.309]	0.595	OR 1.026 [CI: 0.358–2.94]
Diastolic BP <60 mmHg	0.415	OR 0.844 [CI: 0.383–1.863]	0.439	OR 0.862 [CI: 0.380–1.96]

**Represents significance at $p < 0.05$. Fishers exact test on 2×2 table, using R statistical package. OR = Odds Ratio CI = 95% confidence interval

was made <48 hours after admission leaving 136 cases. Data was collected regarding demographics, co-morbidities, investigations, observations, mortality during admission and within 12 months.

Univariate analysis was conducted to identify features associated with mortality. Multivariate analysis was completed using identified associated features.

Results Sixty-four cases (47.0%) died during admission; and a further 32 within 12 months (70.5%).

Demographics: Mean age was 81.6 years (range 52–98); mean number of co-morbidities was 5 (range 0–11). Mean haemoglobin was 110.9 g/dL. The mean white cell count (WCC) was $13.68 \times 10^9/L$ (range 1.87 – $51.7 \times 10^9/L$). Mean urea was 10.5 mmol/L (range 1.9–6.1 mmol/L)

Univariate analysis: Table 1 shows the results of the univariate analysis.

Multivariate analysis: Only combination of raised urea and raised or low WCC were significantly associated with mortality ($p = 0.024$). Adding features of age, observations and co-morbidities did not improve prediction of mortality.

Conclusion Prediction of mortality in HAP is more complex than in CAP. On multivariate analysis, raised urea and raised or low WCC were predictive of mortality. Other features including age, number of comorbidities and observations at the time of diagnosis were not associated with mortality. This perhaps reflects our elderly cohort, with the majority having multiple co-morbidities, with very small numbers aged <65 years or with few co-morbidities. Further work with a larger dataset is ongoing.

P265

CONCURRENT STATIN AND MACROLIDE USE DURING PNEUMONIA TREATMENT IMPROVES SURVIVAL TO HOSPITAL DISCHARGE AND BEYOND

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10.1136/thoraxjnl-2016-209333.408

Abstract P265 Figure 1

Background Pneumonia is a leading cause of hospital admission. With mortality exceeding 18% (BTS CAP Audit 2013) the search for strategies to reduce this continues. Statins are receiving increasing attention for a potential role in improving survival from acute bacterial infections. MHRA guidance recommends that statins should be paused during treatment with a macrolide due to risk of myopathy and rhabdomyolysis.

We undertook a retrospective study to determine the frequency of concurrent statin and macrolide administration in patients diagnosed with pneumonia and whether concurrent use of a statin and macrolide antibiotic to treat pneumonia improved survival compared to stopping statin treatment, and whether concurrent use was safe and tolerable.

165 patient episodes were identified by searching for patients who were coded as having pneumonia and were prescribed a statin and macrolide. Data was collected on statin, dose, severity of pneumonia including intensive care admission, comorbidities, survival, renal and liver function.

Results 62% of the cohort continued a statin throughout pneumonia treatment. In the continued statin group survival to hospital discharge was 79% versus 64% in the group in whom the statin was paused ($p = 0.034$).

Severity of pneumonia (CURB score) was similar for both groups. Statin users were less likely to be admitted to intensive care (28% vs 46%, $p = 0.0219$). Charlson comorbidity index score was similar for the statin (6.4, IQR = 5–8) and non-statin (6.1, IQR = 5–8) groups.

There was no increased risk of acute liver, kidney injury or myopathy in the continued statin group.

Conclusion Continued statin use during treatment for pneumonia with a macrolide antibiotic is safe and may improve survival compared to stopping statin use. Current guidance on concurrent use of statins and macrolides should be reviewed.

P266

OUTCOMES FROM THE INTRODUCTION OF FUNGAL BIOMARKERS TO THE NEUTROPENIC FEVER PATHWAY IN A TERTIARY HAEMATOLOGY DEPARTMENT

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Background Invasive fungal disease (IFD) frequently occurs in febrile neutropenic haemato-oncology patients (NHP). Until 2012 no biomarkers were available for the diagnosis of IFD in our Trust. The neutropenic fever pathway was modified to include serial serum *Aspergillus* galactomannan (GM), serum *Aspergillus* PCR (APCR) from national reference laboratory and Bronchoalveolar lavage (BAL) GM and APCR.

We compared 299 NHP who were investigated with the original pathway between October 2009 and April 2012 with 307 NHP investigated with the novel pathway between April 2013 and 2015. Primary end point was non-inferiority of novel pathway in terms of 12 month mortality. Secondary outcomes were 30 day mortality, length of treatment, length of stay and confidence of diagnosis based on EORTC/MSG criteria¹ and concordance of the different biomarkers.

Abstract P266 Figure 1 Increased confidence in diagnosis of IFD according to EORTC/MSG criteria with novel pathway