from our Advancing Quality team who keep a record of all pneumonias admitted. CURB 65 score and MEWS was collected from the documentation on admission and CURBO2 65 was calculated by applying above criteria for oxygenation.

**Results**

**Average MEWS and CURB Scores**

| Score | COPD (101 patients) | Non-COPD (168 patients) |
|---|---|---|
| CURB - 65 | p value: 0.0921 | P value: 0.0228 |
| CURBO2 - 65 | P value: 0.0054 | P value: <0.0001 |

**Conclusion** CURB65 does not have predictable corelation with MEWS on admission. By incorporating oxygen into CURB65 and converting to CURBO2 65, we demonstrated its enhanced capability to correlate with MEWS on admission.. Further validity prospective studies are required to confirm our findings.

## REFERENCE

1. Defining community acquired pneumonia severity on presentation to hospital: an international derivation and validation study
2. W S lim, M M van der Eerden, R Laing, W G Boersma, N Karalus, G I Town, SA lewis, J T Macfarlane

## P247 CURBO2–65 IS SUPERIOR TO CURB-65 IN PREDICTING READMISSIONS, LENGTH OF STAY AND IDENTIFYING SICKER PATIENTS

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**Introduction and Objectives** Community Acquired Pneumonia (CAP) accounts for a significant proportion of hospital admissions and is a common cause of mortality and morbidity in UK. CURB-65 is recommended by BTS and widely used to stratify patients according to severity and guide initial treatment **(1)**. As oxygen is not part of the CURB-65 assessment, we incorporated Oxygen saturations (SATS) to CURB-65 to create CURBO2–65 score. We then compared CURBO2–65 with CURB65 to assess if CURBO2–65 would be a superior indicator in identifying patients with severe pneumonia.

**Abstract P247 Table 1. CURB-65 versus CURBO2–65.**

| | CURB-65 | | CURBO2–65 | |
|---|---|---|---|---|
| **Readmission within 28 days** | Score | Rate(%) | Score | Rate(%) |
| | 0 | 10 | 0 | 0 |
| | 1 | 18 | 1 | 14 |
| | 2 | 30 | 2 | 25 |
| | 3 | 19 | 3 | 26 |
| | 4 | 16 | 4 | 25 |
| **Length of Stay** | Score | Days | Score | Days |
| (Mean number of days) | 0 | 6.3 | 0 | 5.2 |
| | 1 | 6.8 | 1 | 5.9 |
| | 2 | 8.3 | 2 | 7.7 |
| | 3 | 9.9 | 3 | 8.6 |
| | 4 | 10.8 | 4 | 8.8 |
| | - | - | 5–6 | 11.3 |
| **Critical Care Admission** | Score | Number of cases | Score | Number of cases |
| | 0 | 0 | 0 | 0 |
| | 1 | 2 | 1 | 0 |
| | 2 | 5 | 2 | 2 |
| | 3 | 3 | 3 | 3 |
| | 4 | 2 | 4 | 3 |
| | 5 | 0 | 5 | 3 |
| | - | - | 6 | 1 |

**Methods** We retrospectively reviewed electronic medical records of patients who were diagnosed with CAP between December 2012 and January 2013. CURB-65 was documented for all the cases whilst CURBO2–65 scores were retrospectively calculated. A score of 1 was allocated if SATS were <88% for COPD patients or <94% for non-COPD patients. A score of 1 was added if they were on supplemental Oxygen to maintain their SATS.

**Results** (see Table 1)

Total of 269 admissions with CAP were analysed. 12 of these 269 patients were admitted to critical care. 2/12 (ITU) patients had a CURBO2–65 score of ≤ 2 whilst 7/12 had a CURB-65 score ≤2. CURBO2–65 also had a better correlation with MEWS than CURB-65 on admission ($p < 0.05$).

Only 10% of cases with a CURBO2–65 score of 0–1 (5/50) were readmitted within 28 days compared to 15% of cases with a CURB-65 score 0–1 (13/87).

There was a statistically significant correlation between length of stay and CURB-65 ($p = 0.0085$) and CURBO2–65 ($p = 0.0014$).

**Conclusions** CURBO2–65 is superior to CURB-65 in identifying sicker cohort of patients, predicting readmission rates and length of stay. Adding Oxygen to CURB-65 is simple and can be undertaken even in primary care setting (CRBO2–65 instead of CRB-65).

## REFERENCES

1. Lim WS *et al*. Defining community acquired pneumonia severity on presentation to hospital: an international derivation and validation study. *Thorax* 2003;58:377–382.

## P248 LEGIONELLA PNEUMONIA OUTBREAK RELATED TO A DISPLAY SPA POOL AT A RETAIL UNIT

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**Background** Legionella pneumonia (LP) has been reported in a number of outbreaks in the UK. It has significant implications for public health as outbreaks require investigation to identify a responsible source. An outbreak of LP occurred in the Stoke-on-Trent area of North Staffordshire in July 2012. This is an analysis of the clinical cases reported and subsequent public health enquiry.

**Method** Retrospective review of case records, pathology and radiology. Data was collated on clinical and biochemical features, microbiology and clinical outcome. Results of the public health enquiry were sourced from the local Health Protection Agency (HPA).

**Results** 20 patients were confirmed to have LP. 13 male, 7 female. Mean age was 65 years. 50% were ex-smokers. 70% had

**Abstract P248 Table 1.** Clinical, biochemical and radiology findings.

| | |
|---|---|
| Fever > 38°C | 11 (78%) |
| Type 1 respiratory failure | 9 (45%) |
| Type 2 respiratory failure | 1 (0.05%) |
| CRP > 300 | 9 (45%) |
| Hyponatraemia (Na < 130) | 7 (35%) |
| LFT derangement (ALT > 40) | 16 (80%) |
| Hypoalbuminaemia (< 25) | 10 (50%) |
| Consolidation on CXR | 19 (95%) |