Conclusion

The changes in MHRA guidelines in September 2012 have resulted in a substantial increase in the number of patients admitted and treated with acetylcysteine at the Royal Victoria Infirmary, Newcastle upon Tyne.

These increases are consistent with other recently published studies performed in other UK hospitals(2,3).

Footnote:
Subsequent to abstract submission to EAPCCT, the data described in this poster was included as part of a larger data set from 3 hospitals that has now been published in full (Reference 3).

## Impact of changes in UK management advice for paracetamol overdose on the numbers of adult patients admitted and treated in Newcastle upon Tyne, UK
Muhammad EMO Elamin, Lucy C Peart, Simon L Hill, Simon HL Thomas
1 Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle upon Tyne, UK
2 National Poisons Information Service (Newcastle Unit), Newcastle upon Tyne, UK.

## Introduction

- On 3rd September 2012 the UK Medicines and Healthcare products Regulatory Agency (MHRA) recommended changes in the management of paracetamol poisoning (1).
- Changes included use of a single ‘100mg/L’ nomogram treatment line (Fig. 1); ceasing previously used “normal and high” risk assessment stratification and treating all staggered ingestions and ingestions of uncertain timing.
- This study was performed to quantify the impact of these changes on the management of paracetamol overdose at the Royal Victoria Infirmary, Newcastle upon Tyne, UK.

## Methods

- A retrospective review of all adult patients attending the Emergency Department between 2nd September 2011 and 6th September 2013.
- The medical records of patients attending hospital with ICD-10 coding consistent with possible overdose or self-harm were screened for paracetamol ingestion.
- Data was triangulated with plasma paracetamol concentrations, discharge summaries and the inpatient toxicology database to ensure that all patients were identified and duplicates excluded.

## Results

- Comparing the year before and after guidance change (Table 1):
  - There were no significant changes in the total numbers of patients presenting with suspected paracetamol toxicity.
  - The proportion of patients admitted was higher but not significantly different.
  - The proportion of patients treated with intravenous acetylcysteine increased from 29.6% (n=119) to 42.2% (n=181) after the change. (OR 1.74, 95% CI 1.30-2.31; P = 0.0002)

## Table 1. Management of patients presenting with Paracetamol OD comparing one year before and after guidance changes

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>After</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hospital attendances</td>
<td>402</td>
<td>429</td>
<td>+6.7</td>
</tr>
<tr>
<td>Patients discharged from ED</td>
<td>162</td>
<td>164</td>
<td>+1.2</td>
</tr>
<tr>
<td>Admitted for observation/treatment</td>
<td>240</td>
<td>265</td>
<td>+10.4</td>
</tr>
<tr>
<td>Total treated with intravenous Acetylcysteine</td>
<td>119</td>
<td>181</td>
<td>+52.1</td>
</tr>
</tbody>
</table>

## Figure 1. UK Treatment Nomogram since September 2012

Figure 1. UK Treatment Nomogram since September 2012

## References


The National Poisons Information Service is commissioned by Public Health England on behalf of UK Health Departments.