# TAUROLIDINE SIGNIFICANTLY REDUCES THE incidence OF catheter related blood stream infections in patients on home parenteral nutrition

**OC-033**

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**Introduction** Catheter related blood stream infections (CRBSI) in patients receiving home parenteral nutrition (HPN) cause significant morbidity, are potentially life-threatening and through repeated line replacements may compromise venous access. We introduced products containing taurolidine as preventative antimicrobial line locks in 2006 for HPN patients who had repeated episodes of CRBSI and report the incidence of CRBSI before and after.

**Methods** Data were retrospectively collected from electronic and paper records for all adult HPN patients between January 2001 and October 2011.

**Results** Data were available for 19/22 HPN patients receiving taurolidine locks for a period of 51.9 patient years (21.5 years pre-taur-olidine and 30.4 years post-taur-olidine). Patients were offered taur-olidine if they had: (1) two or more episodes of community borne CRBSI (2) one episode of CRBSI in patients with a persistent source of intra-abdominal sepsis (3) significantly compromised vascular access. The use of taurolidine significantly reduced the rate of CRBSI from 4.59 to 0.81 episodes per 1000 days (p<0.0001). Nine episodes of recurrent CRBSI occurred in five patients despite taur-olidine (one patient had four further infections in 5.6 years). The organisms responsible were coag neg staph. (four episodes), pseudo- monas (one episode), candida (one episode), mixed coliform and coag neg staph (one episode) and two cases which were culture negative.

**Conclusion** Our experience shows that taurolidine significantly reduces the rate of CRBSI, particularly in patients who have had at least two previous infections. It may also have a role in preventing infection in patients with foci of potential abdominal sepsis in the context of type 2 IF. Despite this, it should not be seen as a substitute for meticulous line access techniques as some patients continue to develop recurrent infections while on treatment.

**Competing interests** None declared.

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### OC-034

SAVAGE OF CENTRAL VENOUS CATHETERS IN HPN CATHETER-RELATED BLOOD STREAM INFECTIONS IS SAFE AND EFFECTIVE: 18 YEARS EXPERIENCE FROM A NATIONAL CENTRE

**OC-034**

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**Introduction** Home parenteral nutrition (HPN) is an essential treatment modality for patients with Type 3 intestinal failure (IF), but long term data on the factors associated with HPN dependence and survival are limited.

**Methods** Medical records of patients with IF who received HPN for more than 3 months from a national IF Unit between 1978 and 2011 were reviewed. Kaplan–Meier curves and Cox regression analysis were performed to identify factors associated with HPN dependence and poor prognosis.

**Results** Case notes of 547 patients were reviewed. The overall probability of survival was 89%, 67%, 58% and 27% at 1, 5, 10 and 15 years respectively. 80% of those who achieved HPN independence: patients with gastro-intestinal dysmotility or malabsorption were less likely to achieve HPN independence, whereas those in patients with a small bowel length >150 cm were 3.5× more likely to achieve nutritional independence compared to those with <50 cm.

**Conclusion** This is the largest reported long-term experience of survival and dependence on HPN and will inform future decisions about evolving alternative therapies for type 3 IF, such as small bowel transplantation and lengthening. Nutritional autonomy can be achieved in a significant proportion of patients through adaptation, medical treatment of underlying disease and/or surgical reconstruction.

**Competing interests** None declared.

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### OC-033 Table 1

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Median age at HPN initiation (years)</th>
<th>Duration HPN treatment prior to taurolidine (median days)</th>
<th>Episodes of CRBSI per 1000 patient days (number of episodes)</th>
<th>Duration of HPN treatment post-taurolidine (median days)</th>
<th>Episodes of CRBSI per 1000 patient days post-taurolidine (number of episodes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients</td>
<td>19</td>
<td>10</td>
<td>7846 (162)</td>
<td>4.59 (36)</td>
<td>11 088 (371)</td>
<td>0.81* (9)</td>
</tr>
<tr>
<td>2 or more episodes</td>
<td>11</td>
<td>7</td>
<td>5189 (256)</td>
<td>6.17 (32)</td>
<td>6505 (348)</td>
<td>1.23* (8)</td>
</tr>
<tr>
<td>CRBSI plus persistent source of abdominal sepsis</td>
<td>4</td>
<td>1</td>
<td>24 (0)</td>
<td>0 (0)</td>
<td>845 (226)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Compromised vascular access</td>
<td>4</td>
<td>2</td>
<td>2634 (207)</td>
<td>1.51 (4)</td>
<td>3738 (812)</td>
<td>0.27† (1)</td>
</tr>
</tbody>
</table>

* p Value <0.0001 (proportion testing).

† p Value 0.08 (proportion testing).