BACKGROUND

Parenteral medication administration by continuous infusion has become a common practice in end-of-life home care setting because portable infusion pumps are well tolerated and maintain more nearly constant drug plasma levels.

PURPOSE

To ensure safe and quality home care in paediatric patients nearing end of life in the community setting, by establishing a standard operating procedure based on elaboration by dose banding.

RESULTS

Administration route
- Minimum infusion rate: 0.1 ml/h (implantable port – Port A Cath®: 0.5 ml/h)
- Maximum infusion rate: 500 ml/h (subcutaneous access: 5 ml/h)

Drug library

<table>
<thead>
<tr>
<th>DRUG</th>
<th>&lt; 6 Kg</th>
<th>≥ 6 &lt; 11 Kg</th>
<th>≥ 11 &lt; 20 Kg</th>
<th>≥ 20 &lt; 30 Kg</th>
<th>≥ 30 Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine (diluted)</td>
<td>MOd</td>
<td>100 µg/ml</td>
<td>200 µg/ml</td>
<td>400 µg/ml</td>
<td>800 µg/ml</td>
</tr>
<tr>
<td>Morphine</td>
<td>MO</td>
<td>400 µg/ml</td>
<td>800 µg/ml</td>
<td>1600 µg/ml</td>
<td>2400 µg/ml</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>FE</td>
<td>20 µg/ml</td>
<td>40 µg/ml</td>
<td>50 µg/ml</td>
<td>50 µg/ml</td>
</tr>
<tr>
<td>Midazolam</td>
<td>MI</td>
<td>1000 µg/ml</td>
<td>2500 µg/ml</td>
<td>5000 µg/ml</td>
<td>5000 µg/ml</td>
</tr>
<tr>
<td>Morphine + haloperidol</td>
<td>MO</td>
<td>400 µg/ml</td>
<td>800 µg/ml</td>
<td>1600 µg/ml</td>
<td>2400 µg/ml</td>
</tr>
<tr>
<td></td>
<td>+ HA</td>
<td>20 µg/ml</td>
<td>40 µg/ml</td>
<td>80 µg/ml</td>
<td>120 µg/ml</td>
</tr>
</tbody>
</table>

Shelf life: 14 days. Maximum infusion period: 5 days.

Experience july 2017 – august 2018

6 patients
- Medium age: 7.1 years (4 months – 19 years)
- Weight range: 6 – 40 Kg
- No medication error or infusion-related incident were recorded.

22 drug solutions
- 12 were necessary
- 10 were discarded:
  2: previous death
  8: management by oral route

CONCLUSIONS

The standardization of drug solutions containing morphine, haloperidol, midazolam or fentanyl permits the establishment of a rational program to ensure safe and quality end-of-life home care in paediatric palliative patients.