PN Guidelines presentation

PN Guidelines in home parenteral nutrition

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ESPEN-guidelines for home parenteral nutrition (HPN)

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and the HAN-Working Group, ESPEN

Florence 2008
HPN guidelines

- ESPEN committee on parenteral nutrition, chair, Prof. Federico Bozzetti
- Committee on HPN (MS)
- Experts in the field and support from the HAN-Working group
How did we do this?

- Definition of the questions on HPN management to be answered
- Topics were assigned to individual experts
- Search of literature, definition of terms
- The groups came up with statements, comments and grading for the guidelines
- Awaiting review
HPN guidelines

• Which topics?
  – Indication for HPN
    • Benign and malignant disease
  – Nutritional requirements
    • Energy sources, electrolytes and vitamins
HPN guidelines

• Topics continued

  – How to organize HPN treatment
    • Nutrition team
    • Teaching
    • Monitoring
Guidelines HPN

• **Topics continued**
  – Which catheter to use for HPN
  – Catheter related complications
    • Line sepsis
    • Thrombosis
The guidelines

• The remaining issues covered:
  
  – Metabolic complications
    • Liver
    • Bone
  – Quality of life
  – Intestinal transplantation
How strong is the evidence for the recommendations?

- HPN has been used since 1970-ties
- Low number of patients, small centres
- Huge clinical experience
- Few controlled studies on treatment effect and management of complications
The grading of the evidence presented in HPN guidelines

- **A total of 65 statements**

<table>
<thead>
<tr>
<th>Grade</th>
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<th>%</th>
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</thead>
<tbody>
<tr>
<td>Grade A</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Grade B</td>
<td>23</td>
<td>35</td>
</tr>
<tr>
<td>Grade C</td>
<td>37</td>
<td>57</td>
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</tbody>
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The highest level of evidence

• HPN guidelines – grade A and B
  – Catheter related complications
  – Choice of catheter
  – Teaching procedures for HPN
  – Selecting patients for intestinal transplantation
What type of central venous access can be used for long term HPN?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Grade</th>
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<tbody>
<tr>
<td>Skin-tunnelled central catheters with an external part?</td>
<td>B</td>
</tr>
<tr>
<td>Ports with under-skin chambers?</td>
<td>A</td>
</tr>
<tr>
<td>PICC-lines for HPN?</td>
<td>C</td>
</tr>
<tr>
<td>Loss of vascular access – how to prevent?</td>
<td>C</td>
</tr>
<tr>
<td>Which type of catheter for patients with active cancer?</td>
<td>B</td>
</tr>
</tbody>
</table>
What type of central venous access can be used for long term HPN?

<table>
<thead>
<tr>
<th>Questions/ Answer</th>
<th>Grade</th>
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<tbody>
<tr>
<td><strong>Skin -tunnelled central catheters with an external part?</strong></td>
<td><strong>B</strong></td>
</tr>
<tr>
<td>Central catheters are used, as permanent access is required for long-term parenteral nutrition. The routes most commonly used for venous access are the subclavian vein or internal jugular vein. A skin-tunnelled catheter is considered the best for patients on long term treatment with parenteral nutrition or saline requiring infusions on a daily basis. Several types are available, the Broviac or Hickman being those most frequently used. Multi-lumen catheters are not recommended in order to minimize the risk of infection.</td>
<td></td>
</tr>
<tr>
<td><strong>Ports with under-skin chambers?</strong></td>
<td><strong>A</strong></td>
</tr>
<tr>
<td>Ports are an alternative to tunnelled catheters in patients, who need parenteral supply daily or for intermittent therapy.</td>
<td></td>
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Guidelines HPN - Catheter related complications (I)

Infection:

• What is the recommended treatment for tunnel and exit-site infections? A
• What action should be initiated if catheter related bacteremia is suspected? C
• How should HPN-patients with positive blood cultures be managed? B
• What are the absolute indications for catheter removal? B
• When should the line be changed? B
• How to manage an infected port? B
### Guidelines HPN - Catheter related complications (II)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Repeated line infection – What can be done to prevent?</td>
<td>B</td>
</tr>
<tr>
<td>• How to diagnose catheter related venous thrombosis?</td>
<td>A</td>
</tr>
<tr>
<td>• Catheter related thrombosis – what treatment?</td>
<td>A</td>
</tr>
<tr>
<td>• Is it generally recommended to use prophylactic treatment with anti-thrombotic medication in patients with a central line (heparin lock)?</td>
<td>B</td>
</tr>
<tr>
<td>• Is the use of a sterile dressing to cover the exit site of tunelled catheters recommended?</td>
<td>A</td>
</tr>
</tbody>
</table>
What is the indication for HPN in patients with incurable cancer?

<table>
<thead>
<tr>
<th>Answers:</th>
<th>Grade</th>
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<tbody>
<tr>
<td>Incurable cancer patients may enter a HPN programme if they are unable to meet their nutritional requirements by oral or enteral route and if there is a risk of death due to malnutrition. It is important that symptoms are controlled and that patients are aware of the limitations of the treatment.</td>
<td>C</td>
</tr>
<tr>
<td>HPN is not recommended for patients with incurable disease and a short life expectancy. It is not a contraindication for HPN that oncologic treatment has been stopped.</td>
<td>C</td>
</tr>
<tr>
<td>HPN is recommended to patients with malignant obstruction or partial obstruction of the gastrointestinal tract, provided that they do not suffer from severe organ dysfunction that may significantly complicate treatment with parenteral nutrition. Patients must have a Karnofsky score of higher than 50 and no sign of cancer metastasis to the liver or lungs.</td>
<td>B</td>
</tr>
<tr>
<td>The suggested nutritional regimen for HPN provides about 30 kcal/kg/day, (1:1 glucose/fat ratio and 1 mEq/Na/kg/day in a total fluid volume of 30 ml/kg/day). Protein requirement is about 1g / kg/ day. If continued long term adjustments are required.</td>
<td>B</td>
</tr>
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</table>

Comment: Nutritional support for cancer patients are commonly accepted by the scientific community in relation to malnutrition while the patients are receiving oncologic therapy or if the patients suffer severe complications following treatment protocols with……………………
Conclusion

• The HPN guidelines
  – Presents the available evidence for specifically selected topics
  – Highlights areas of good practice
  – May serve as inspiration for local guidelines and policies
Conclusion

• The HPN guidelines

  – Stimulate research to increase the level of evidence for HPN treatment