### Table 14: Tube or device dysfunction

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible causes</th>
<th>Options for prevention and management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tube or device blockage</strong></td>
<td>Use of poorly crushed medications or medications unsuitable for crushing and placing down gastrostomy device.</td>
<td>Seek pharmaceutical advice prior to using crushed medications.</td>
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<tr>
<td></td>
<td>• Inadequate water flushing post feeding and/or administration of medications.</td>
<td>Consider the use of liquid/compounded medications or medications which dissolve where possible.</td>
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<td></td>
<td>• Siphoned gastric fluid has flowed back into the device by fluid displacement and solidified.</td>
<td>Give medications individually followed by a flush in between and after each medication.</td>
</tr>
<tr>
<td><strong>Red irritated peri-stomal skin</strong></td>
<td>(unwashed, dry scaly skin, exudate build-up under flange)</td>
<td>Routine flushing should be included in the enteral feeding regimen. Advice should be sought when prescribing a flushing regimen to paediatric patients or patients on fluid restrictions.</td>
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<tr>
<td></td>
<td>• Material fatigue associated with device aging or mishandling.</td>
<td>Including a stand-alone flush prior to longer periods between access (e.g. before going to bed) may also assist in the prevention of device blockage.</td>
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<tr>
<td></td>
<td>• Use of clamp on device when possible.</td>
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</tr>
<tr>
<td></td>
<td>• Replace device.</td>
<td>Replace device.</td>
</tr>
</tbody>
</table>

3. **Tube or device dysfunction**

Some common device-related complications with identified causes and recommended options for prevention and management are included in the table below:

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Red irritated peri-stomal skin (unwashed, dry scaly skin, exudate build-up under flange)

PHOTO: A Kennedy

Severe Excoriation (partial thickness skin damage and permanent scarring)

PHOTO: A Kennedy

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Continued overleaf
General guidelines for unblocking a gastrostomy tube or device 

- Visually inspect for mechanical occlusions e.g. clamps, ports, connectors
- If the majority of the gastrostomy tube or device is external, massaging the tubing may allow for obstructions to be freed
- Use a small enteral dispenser with 10-20ml of warm water and an aspiration (or “push and pull”) flush technique. This process may need to be repeated a few times. Excessive force should not be used
- Evidence in support of specific solutions to unblock devices is scarce. The GDG does not recommend cola beverages or acidic juices
- Acid, alkaline or enzyme solutions may be deemed appropriate by the health care team to unblock a device if flushing with warm water using an aspiration flush technique is unsuccessful.
**Buried Bumper Syndrome**

Migration of the gastrostomy device’s internal bumper out of the stomach and into the gastrostomy tract or peritoneum with partial or complete loss of tract patency between the device’s distal tip and stomach is termed the Buried Bumper Syndrome. This is usually due to excessive external traction on the device from a tight external flange that causes the bumper to migrate up into the tract or erode through the gastric wall.\(^{22, 145, 146}\)

**Presentation** may include:
- Induration surrounding the stoma
- Localised pain
- Partial or complete loss of gastrostomy patency (difficulty, or inability, to instil any fluids through the tube)
- Delivery of fluid via the tube or device may result in leakage around the stoma (where the distal end of the tube/device is in the tract instead of the stomach)
- The internal bumper may be visible in the tract
- Inability to advance or rotate the tube/device.

**Identification**
1. Marks at skin level have changed
2. Tube or device is difficult to advance or rotate
3. Leakage of feed, fluid, pus or other bodily fluids
4. Pain with tube or device use
5. Continual pain at site.

**Prevention** - maintain snug fitting gastrostomy tube or device and readjust as needed i.e:
- The external flange should be able to be lifted 2-5mm from the skin when gentle traction is applied to the tube or device
- Avoid unnecessary pulling or traction
- Gently push the tube in slightly and pull back out once per week.\(^3, 22\)
- Ensure the tube or device is adequately secured under the clothes
- Ensure that the tube or device selected is an appropriate one for the patient.

*See Section 4.1 “Standard care and follow-up” for more information (Page 39).*

**Investigations** if Buried Bumper Syndrome suspected:
1. CT scan
2. Plain X-ray with contrast (a plain X-ray is insufficient)
3. Fluoroscopic screening and then reestablishment of correct tract
4. Endoscopy.