What are the Current Patient Safety Issues in Dialysis?

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Introduction

RA / BRS Patient Safety are developing a proactive approach to patient safety in the dialysis setting (1,2). Whilst patient safety approaches often involve reacting to individual patient safety incidents, this approach alone can be limiting as:

- It does not prevent harm before it occurs
- It can over-emphasise individual incidents, whilst ignoring greater risks.

However, identifying current patient safety issues and predicting incidents is challenging. Patient safety can cover a potentially infinite numbers of issues, with risks to patients changing with developing treatments and technology.

One approach adopted to identify patient safety issues within dialysis, was to survey the lead nurses opinions across the UK. As nurses are the professionals that perform dialysis treatments on a day to day basis, it was felt their opinions and insights would be valuable.

Methods

- An electronic survey document was designed with the aim to gain opinions of lead renal nurses on what they thought were current patient safety issues within dialysis.
- Open-ended questions were developed which provided little guidance, except to ask their opinions. The survey was constructed so as not ask leading questions or be too onerous to complete.
- Included within the survey were both questions related to haemodialysis and peritoneal dialysis.
- The survey was sent to all current lead nurse contacts in the UK.
- Returns from the survey were analysed, leading to identification of a number of patient safety issues.

Results

Returns were received from 15 renal units within the UK, with varying degrees of detail.

Haemodialysis

53 patient safety issues were raised, which covered 23 different types of patient safety issues. These fell into 4 categories (Figure 1):

- Extracorporeal circuit 11/53 incidents identified 20.8%
- Vascular access 11/53 20.8%
- Nurse staffing 10/53 18.8%
- Other issues 21/53 39.6%

Figure 1: Patient Safety Issues in Haemodialysis

Haemodialysis related patient safety issues of note included:

<table>
<thead>
<tr>
<th>Incidents</th>
<th>No. Renal Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood loss from vascular access</td>
<td>5 / 15</td>
</tr>
<tr>
<td>E.g. Venous needle dislodgement; Ruptured AVF</td>
<td></td>
</tr>
<tr>
<td>Falls</td>
<td>7 / 15</td>
</tr>
<tr>
<td>Reduction of HD time due to transport demands</td>
<td>4 / 15</td>
</tr>
<tr>
<td>Vascular Access Infection</td>
<td>2 / 15</td>
</tr>
<tr>
<td>Nurse Staffing Issues</td>
<td>5 / 15</td>
</tr>
<tr>
<td>e.g. Staffing Levels; Inexperienced Staff; Training</td>
<td></td>
</tr>
</tbody>
</table>

Peritoneal Dialysis

Only 7 units (7/15) completed the section on peritoneal dialysis. Safety issues related to peritoneal dialysis were:

<table>
<thead>
<tr>
<th>Incidents</th>
<th>No. Renal Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peritonitis – including Encapsulating Sclerosing Peritonitis</td>
<td>7 / 7</td>
</tr>
<tr>
<td>Risk of overfill of the peritoneal cavity in APD</td>
<td></td>
</tr>
<tr>
<td>Lack of Specialist Support for PD patients out-of-hours</td>
<td>2 / 7</td>
</tr>
<tr>
<td></td>
<td>1 / 7</td>
</tr>
</tbody>
</table>

Conclusion

The potential risks to patients undergoing dialysis continue to be numerous and varied.

- Infection and blood loss from vascular access persist as areas of concern.
- Falls in dialysis patients was the second highest identified risk and was also identified from the National Reporting and Learning System as a major cause of severe harm or death (2). This issue requires multi-professional working to provide viable and practical solutions.
- Both these issues will provide focus for RA / BRS Patient Safety in the future.
- The extracorporeal circuit in haemodialysis continues to be a high risk area that requires vigilance and skill to manage. This issue links to another area of concern - the need for adequate, competent haemodialysis nurses.
- Peritoneal dialysis had less issues identified, but there are still areas of concern that require consideration.

Relevance

These survey results provide focus for potential patient safety issues that could be proactively considered by RA / BRS Patient Safety and have contributed to the strategy for RA / BRS Patient Safety, along with other data. Work is being undertaken in vascular access care, as well as alerts related to identified risks in the haemodialysis circuit.

The spectrum of issues raised indicates that RA / BRS Patient Safety alone cannot address all these issues. Whilst it can provide guidance and support to units and develop patient safety in renal care in the future, renal units need an engaged approach to patient safety.

Joint working between RA / BRS Patient Safety, and all UK renal units is essential to ensure patient safety is improved. Engagement with patient safety will be facilitated by renal staff accessing and using the new patient safety area on the RA and BRS websites.

References


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