Reducing Harm from Extravasation Injuries

Hannah Taylor, Kate Pryde & co . . .
Problem

• In 2013 35 extravasation injuries

• Court proceedings - payouts of £170 000

• Impact on patient, family and staff involved
Defining the problem

• Baseline & ongoing data (*aka audit!*)
• Process mapping
• MDT problem:
  – Lines inserted in multiple venues
  – Dressing use varied (theatres changed after feedback)
Extravasation Audit

Extravasation injury data collection proforma

- Date and time of injury:
- Date of cannula insertion:
- Where was cannula inserted (e.g. ward, theatre etc.):
- Cannula site (anatomical location):
- Cannula dressing (e.g. IV 3000):
- Bandage in situ at time of extravasation injury: YES/NO
- If yes was there a ‘window’ to visualise insertion site? YES/NO
- Insertion site easily visible through dressing: YES/NO
- Paediatric Extravasation and Phlebitis (PEP) score chart accurately completed: YES/NO
- (Please attach a photocopy of the PEP chart to this form)
- Drug being infused at time of extravasation injury:
- High risk injury (see extravasation guideline): YES/NO
- Infusion stopped: YES/NO
- Cannula left in situ: YES/NO
- Time doctor called:
- Time doctor arrived:
- Wound photographed: YES/NO
- Hyaluronidase administered and washout performed: YES/NO
- Parent/carer informed: YES/NO
- Incident form completed: YES/NO
- Senior doctor (SO or consultant) informed: YES/NO
- Plastic surgery team informed at time of injury: YES/NO

• Compliance with UHS Paediatric Extravasation Guidance and UHS Peripheral Cannulation Policy
Measures

• **Process**
  – Extravasation injuries
  • Observation only
  • Required irrigation
  • Compliance with escalation and management policy
  • Documentation

• **Outcome**
  – Plastic surgery involvement
  – Payouts
Solutions

• MDT approach: inserting, caring, using and medications all contribute
• Different staff groups – theatres, wards, ED
• Education, education, education
  – Standardised process – protocol for management
  – Whole process: patient/case based
    • mandatory training days,
    • doctors inductions,
    • simulations (recognition and escalation) etc
    • top tips
Run Chart – Total number of Extravasation Injuries since June 2015
<table>
<thead>
<tr>
<th>Year</th>
<th>Number of extravasations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>35</td>
</tr>
<tr>
<td>2014</td>
<td>36</td>
</tr>
<tr>
<td>2015</td>
<td>32</td>
</tr>
<tr>
<td>January – Beginning of Sept 2016</td>
<td>7</td>
</tr>
</tbody>
</table>
Further data

• No cases where plastic surgery intervention required

• All parents/carers informed and Duty of Candour completed where required
Ongoing Learning

• High risk drugs – acyclovir. How to ‘be alert’
• Documentation of PEP and cannula insertion
• Night time PEP vital – 2015 audit showed majority occurred OOH, in 2016 6/7 OOH
• Timings of escalation

• Continued programme of education essential
Key Messages

• Success achieved through:
  – Multi-disciplinary approach
  – Education, education, education – adapted to requirements of particular group
  – Ensuring continued awareness

• Utilising a similar approach for improvement in other areas
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Thank you

• Any questions?