Intermittent Pneumatic Compression (IPC)

25th August 2015
RCPE
Venous thromboembolism after stroke

DVT 20%  
5% symptomatic  
PE 10% on screening MRI  
Diagnosed in <3%
Intermittent Pneumatic Compression
Controllers

Kendall SCD Express

Kendall SCD™ 700 Series Controller
Sizing thigh-length sleeves

<table>
<thead>
<tr>
<th>Thigh circumference (cms)</th>
<th>Thigh circumference (inches)</th>
<th>Size of sleeve</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;46</td>
<td>&lt;16</td>
<td>X small</td>
</tr>
<tr>
<td>46-56</td>
<td>16-22</td>
<td>small</td>
</tr>
<tr>
<td>56-71</td>
<td>22-28</td>
<td>medium</td>
</tr>
<tr>
<td>71-92</td>
<td>28-36</td>
<td>large</td>
</tr>
</tbody>
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CLOTS 3

Immobile Stroke patient
Day 0-3 of admission

Routine care & IPC

Routine care & No IPC

- Duplex of both legs at 7-10 days
- Duplex of both legs at 25-30 days
- 6 months follow up
CLOTS 3 – Efficacy
30 day VTE outcomes

IPC | No IPC
---|---
Proximal DVT | 8.5 | 12.1
Symptomatic DVT | 4.6 | 6.3
Any DVT | 16.2 | 21.1
Any PE | 2 | 2.4

P=0.001
P=0.045
P=0.001
P=0.453
Probability of Death within 6 months

Hazard Ratio = 0.86 (95% CI 0.73 - 0.99) p=0.042

Cumulative Hazard

IPC
No IPC

Hazard Ratio = 0.86 (95% CI 0.73 - 0.99) p=0.042
Conclusion from CLOTS 3

- IPC is feasible and safe
- IPC is an effective form of VTE prophylaxis  NNT = 28 for proximal DVT
- It improves overall survival NNT~ 43 for death in 30 days
- Effective in ischaemic & haemorrhagic stroke
- Recommended by SIGN and NICE
Patient pathway

☐ Is patient able to walk without help to the toilet?
☐ Is the patient on an end of life pathway?
☐ Has the patient got skin breaks on both legs?
☐ Has the patient got severe oedema?
☐ Has the patient got severe peripheral vascular disease

If any answers Yes
Do not offer IPC
(tick reason)

If all answers No
Offer IPC
If patient has capacity discuss

• Pros – reduced DVT and improved chances of survival
• Cons – possible discomfort, noise and mild skin problems
If agrees to IPC

- Measure thigh at widest point
- Select appropriate size of thigh-length sleeve
- Apply sleeve – checking fit
- Attach to controller
- Turn on controller
- Check working properly – no alarms after 30 mins
- Record “Thigh length IPC” use on medication chart – 3x daily
Documenting the use of IPC

• The Scottish Stroke Care Audit attempts to monitor the use of IPC
• The auditors rely on the IPC use being documented – usually on the medication chart.
• Q – was IPC offered to patient?
• Date first offered?
% of immobile patients offered IPC in Scotland
Use of IPC by Health Board 2014 to 2015

- Scotland
- Ayrshire & Arran
- Borders
- Dumfries & Galloway
- Fife
- Forth Valley
- Grampian
- Greater Glasgow & Clyde
- Highland
- Lanarkshire
- Lothian
- Orkney
- Shetland
- Tayside
- Western Isles
Record IPC use on medication chart

- Insert “thigh-length IPC”
- x 3 per day – to check applied and working
- Does not require a doctor to prescribe
- Nurse can sign for it
Optimising use on your stroke unit

- Identify local champion(s)
- Include in their appraisal
- List of all nursing staff – ensure all have undergone training
  - Module at [www.stroketraining.org](http://www.stroketraining.org)
  - Practical experience on ward
- Some limited training for medics, physios etc to be aware and to ensure switched on
- A further workshop on 27th October
Optimising use on your stroke unit

- Introduce pathway on ward
  - In patients admission pack
  - Laminated version on wall
- Link with local SSCA auditor
- Obtain monthly reports of use
- Exception reporting to establish why not offered
NATIONAL MEETING
“STROKE CARE IN SCOTLAND”
AGENDA