An Acute Neurology Service – How Can it Help Your MAU?

Thomas Peukert

13/11/2017
Plan

- Pilot project data
- How has the Acute Neurology Service influenced ED admission rates?
<table>
<thead>
<tr>
<th>Speciality</th>
<th>Number of patients</th>
<th>Speciality</th>
<th>Number of patients</th>
<th>Speciality</th>
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Trend in ED Attendances 2005-2017 RVH

Card Gastro Neuro Resp
# Admissions per Medical Specialty August 2013

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<thead>
<tr>
<th></th>
<th>Respiratory</th>
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<tr>
<td>% admitted</td>
<td>49.2%</td>
<td>34.2%</td>
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Belfast Health and Social Care Trust

Caring supporting improving together
### ED Attendances by Specialty - 2013

<table>
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<tr>
<th>Specialty</th>
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<th>Feb</th>
<th>Mar</th>
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<td>41.7%</td>
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<td>55.3%</td>
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<tr>
<td>%</td>
<td>50.7%</td>
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<td>51.1%</td>
<td>54.7%</td>
<td>58.0%</td>
<td>54.1%</td>
</tr>
</tbody>
</table>
Average Available Beds in the Belfast Trust by Specialty

Hospital Statistics: Inpatient and day case Activity Statistics 2013/2014
Revised edition: Thursday 23rd October 2014

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Number of beds</th>
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</thead>
<tbody>
<tr>
<td>General Medicine</td>
<td>248.5</td>
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<tr>
<td>Elderly Care</td>
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<tr>
<td>Cardiology</td>
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<tr>
<td>Respiratory</td>
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<td>Oncology</td>
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<tr>
<td>Renal</td>
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<tr>
<td>Haematology</td>
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<tr>
<td>Neurology</td>
<td>44.1</td>
</tr>
<tr>
<td>Endocrine</td>
<td>22</td>
</tr>
</tbody>
</table>

Belfast Health and Social Care Trust

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Patient Outcome per Medical Specialty - August 2013
ED Admissions - Neurological Symptoms

1. For urgent neurology opinion
2. For urgent scan (CT/MRI)
3. For observation and urgent treatment
### APPOINTMENT SHEET  
Rapid Access Neurology Clinic

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday, 7th of Oct</th>
<th>Wednesday, 9th of Oct</th>
<th>Friday, 11th of Oct</th>
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</thead>
<tbody>
<tr>
<td>13.00</td>
<td>LABEL</td>
<td>LABEL</td>
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<tr>
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<tr>
<td>15.00</td>
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<tr>
<td>16.00</td>
<td>LABEL</td>
<td>LABEL</td>
<td>LABEL</td>
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</table>
Rapid Access Neurology Clinic (RANC)

- 48 patients referred in 4 weeks
- 45 patients attended
- Each slot 1 hour
# RANC Impact - Admissions

<table>
<thead>
<tr>
<th></th>
<th>No RANC</th>
<th>RANC offered</th>
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</thead>
<tbody>
<tr>
<td><strong>Date</strong></td>
<td>01/08/13 - 31/08/13</td>
<td>25/09/13 - 23/10/13</td>
</tr>
<tr>
<td><strong>A+E attendees</strong></td>
<td>7149</td>
<td>6849</td>
</tr>
<tr>
<td><strong>Neurology</strong></td>
<td>479</td>
<td>436</td>
</tr>
<tr>
<td><strong>Admitted</strong></td>
<td>269</td>
<td>211</td>
</tr>
<tr>
<td><strong>% admitted</strong></td>
<td>56.2%</td>
<td>48.4%</td>
</tr>
<tr>
<td><strong>Referred to RANC</strong></td>
<td>0</td>
<td>48</td>
</tr>
<tr>
<td><strong>Admission avoided</strong></td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td><strong>If no RANC available</strong></td>
<td><strong>Admission rate</strong></td>
<td><strong>56.2%</strong></td>
</tr>
</tbody>
</table>
Acute Neurology Service

- Funding 2 acute Neurologists - May 2015
- Reduce admissions of patients attending ED with neurological symptoms
Aim of Acute Neurology Service

**3.5 RANC/week**

Daily assessment of patients that were admitted with neurological symptoms (MAU and CAU)

Improvement of general neurology service (headache clinics/movement disorder clinic)

Daily reviews of patients on CAU that attended ED over night

Regular teaching and feedback for ED/MAU/general medicine

Guidelines
RANC Referrals – Trust (N=1547)

- Belfast Trust: 61%
- South Eastern Trust: 20%
- Northern Trust: 15%
- Southern Trust: 3%
- Western Trust: 1%
ED/CAU Referrals to RANC (N=1547)

- **Advanced Clinical Practitioners**: 1.3% inappropriate, 0.0% appropriate
- **Junior Doctors**: 3.2% inappropriate, 24.4% appropriate
- **Middle Grade**: 4.1% inappropriate, 33.5% appropriate
- **Consultant**: 3.5% inappropriate, 30.1% appropriate
RANC Clinical Diagnosis (N=1547)
Non Neurological Conditions in RANC

- Lung CA
- Lymphoma
- Osler-Weber-Rendu Disease
- Anaemia
- Breast CA (Brachial Neuropathy)
- SVC obstruction
- Cauda equina syndrome
- Perforated eardrum
- Mastoiditis
- Hydrocephalus
- Posterior vitreous detachment
- Temporal arteritis
- Hypoglycaemia
- Spinal fracture
- Hypothyroidism
- Neurocysticercosis
- WPW
- PVD
- OSAS
- Spinal cord compression
- Intracranial haemorrhage
- SLE
- Phaeochromocytoma
- Lyme disease
- Glioblastoma
- HIV
ED diagnosis correct?

- Yes: 44%
- No: 56%
Patients diagnosed with first seizure in ED and referred to RANC
N=279

Attended RANC
N=210

DNA RANC
N=69

Diagnosis of seizure agreed in RANC
N=155

Diagnosis of seizures not agreed in RANC
N=55

New diagnosis of seizures in RANC
N=16
Waiting Times
Effect of Acute Neurology on Admission Rate

PRE RANC 2nd Quarter 3rd Quarter 4th Quarter 1st Quarter 2nd Quarter 3rd Quarter 4th Quarter 1st Quarter 2nd Quarter 3rd Quarter
54.1% 47.4% 43.5% 43.2% 45.3% 32.6% 30.6% 30.2% 28.2% 32.3% 31.9%
Cost Savings Per Annum

- Admissions avoided: 1250
  - Costs/hospital bed: £ 541.68
  - Average length of stay: 12.7 days
  - Likely length of stay: 3 days
  - Money saved: £ 2,031,300

- Money saved reduced scans: £ 50,000

- Money saved SPR rota compliance: £ 200,000

- Total estimated savings: £ 2,281,300
Impact of Acute Neurology Service

- Reduce unnecessary admissions
- Patients are seen earlier by a specialist
- High level of patient satisfaction
- Less inpatients under neurology
- More appropriate investigations
- Two extra neurology consultants – expansion of acute neurology service (MAU liaison)
- Significant cost savings
RANC – a novel concept

Local adult neurology services for the next decade
Report of a working party

Association of British Neurologists
ABN Acute Neurology services survey 2014
Acute neurological problems: frequency, consultation patterns and the uses of a rapid access neurology clinic

FA Chapman, AE Pope, D Sorensen, RSG Knight, R Al-Shahi Salman
1Medical Student; 2Foundation Year Doctor, Medical School, University of Edinburgh; 3Information Analyst, NHS Lothian; 4Professor of Clinical Neurology and Honorary Consultant Clinical Neurologist, Royal Infirmary of Edinburgh; 5MRC Clinician Scientist and Honorary Consultant Neurologist, Division of Clinical Neurosciences, University of Edinburgh, Edinburgh, UK

Experience from two decades of the Cambridge Rapid Access Neurology Clinic

Authors: Laura T Axinte, Barnaby D Fiddes, Alastair Donaghy, Adam Whyte, Chris Allen, Stephen J Sawcer, Robert J Adam and Sybil RL Stacpoole
Acknowledgements

- Dr Karen Doherty
- Dr Stella Hughes
- Dr John Craig
- Dr Gavin McDonnell
- Dr Michael Kinney
- Dr Eoghan Ferrie
- Dr John Maxwell
- Mrs Heather Selfridge
- Mr Gerry Atkinson
“This is an extremely effective service. My symptoms were having such a negative effect on my life, so if I had had to wait months for a neurology appointment, my life would have came to a stand-still. I am now on the road to recovery. This clinic is a brilliant service and would be extremely beneficial to all future patients.”

Questions?

“There is little worse than having to wait for a diagnosis which has the potential to change a life completely so I think in our case this was crucial to have such a speedy appointment and consultation. I could not stress enough how important it was for us to have an immediate consultation rather than have to put lives on hold. This clinic is an absolute essential and should be made a permanent facility.”