Alcohol in the General Hospital: new working models in the North West

Dr Jonathan Dewhurst
Lead Consultant Psychiatrist
GMW Mental Health NHS Foundation Trust
jonathan.dewhurst@gmw.nhs.uk
Plan

1. Size of the alcohol problem in General Hospital
2. Salford AAOT model & outcomes
3. Wigan ACM model & outcomes
4. RADAR Rapid Access (to alcohol) Detoxification
   Acute Referral
The Challenge

Significant Burden of Alcohol on Health System

- Alcohol related diseases = 1 in 8 NHS beds
- 35% of A&E attendees alcohol related (between midnight and 5am – 70%)
- North West highest rates of alcohol related hospital admissions in England and worsening gap c.f. rest of England
- Pattern of recurrent brief admissions to general hospitals for alcohol related problems
- Targets to reduce alcohol related admissions rate (formerly NI39), reduced avoidable admissions and readmissions (within 30 days loss of tariff)
- Targets to reduce drop out between Hospital and Community services
Alcohol in Salford

• 4200 dependent adults, 13200 harmful drinkers

• 65% of all suicide attempts, major contributor to accidental death

• Acute hospital (SRFT) – 9th highest alcohol-related cases nationally

• £37M P.A., compromising effectiveness of A&E and acute hospital

• 30% one year mortality rate in pilot top 20 frequent attenders

• 24 of the pilot top 100 cohort died whilst business case was established
Salford AAOT

- Perception of ED problem with no solution
- Information sharing with SDAS following alcohol conference
- Alcohol assertive outreach team from multi-agencies:
  - Consultant Emergency Medicine
  - Hospital health and wellbeing manager
  - Alcohol Specialist Nurse
  - Alcohol worker
  - Consultant Addiction Psychiatrist
  - Social Worker
  - Data analyst and Administrative Support
  - STR Worker
  - Clinical lead (Dual diagnosis worker)
  - Clinical Psychologist
  - Police and Council Links
AAOT interventions

- 6 weekly individual case formulations
- Professional and management supervision
- Improved access to information
- Care pathways with local drug & alcohol services
- Weekly MDT
- Team approach
- Increased awareness within the hospital
- Improved exit plans
- Information sharing agreements
AAOT results

• Significant reductions in hospital admissions and A&E presentations in the 3 months following case management compared with the 3 months immediately prior to AAOT
  • Hughes NR et al, Frontline Gastroenterology 2013; 0: 1-5

• Mortality reduced from 30% to 7%

• Costs
  – Team cost £300K per year
  – Cost reduction from Top 30 work (after 2 years) £745K
  – This does not include any savings from the ‘up and coming’ work
  – Savings to wider community, GMP not considered
Wigan ACM

- Frequent attenders to A&E with alcohol-related problems – high financial burden
- Partnership set up with acute hospital & community alcohol service in October 2010
- Aim to reduce alcohol-related presentations & admissions at the hospital
- Hospital compile a list of the top 50 frequent attenders to A&E
- Consent given for alcohol worker to engage client
- Care plan formulated from the alcohol worker
- Assertive outreach in the community and inreach within hospital
- Psycho-social interventions, support with attending groups & appointments
- Monthly multi-agency meeting to discuss cases & adapt care plans
Wigan ACM team

- **WWL NHS Acute Trust**
  - Consultant gastroenterologist
  - Acute Trust alcohol nurses based at A&E & on inpatient wards

- **GMW MH NHS Trust**
  - Consultant addiction psychiatrist
  - 2 ACM alcohol workers & a support worker

- **Other agencies**
  - Social worker/Anti-social behaviour team representative
  - General adult mental health representatives (case-specific)
  - Police (case-specific)
  - Paramedics (case-specific)
Wigan ACM – results

• Results from the 1st three 6 month phases:
  – Reduction in the A&E presentations, hospital admissions, cost of admissions and length of stay in hospital

• Sustained improvement for 18 months after ACM engagement:
  – Across this group hospital admissions in phase 1-3 were 216. Across the subsequent 18 months these fell to 115: a fall of 47%
  – The group had 547 A&E attendances in phase 1-3. In the subsequent 18 months these fell to 351: a fall of 36%
  – For these clients alone this represents a cost saving on hospital admissions of £106,000 and around £17,000 in A&E costs
RADAR

Rapid Access to (alcohol) Detoxification: Acute hospital Referrals

12 Month Evaluation
The Solution: RADAR

Rapid transfer of patients presenting to acute hospital to a specialist facility who:

- Want to stop drinking and require a detoxification who otherwise would have been admitted to acute bed
- Close working with Alcohol Nurse Specialist within Acute Hospitals (gatekeeping, referral pathway, )
- Transfer as rapidly as possible
- **Rapid access to medically managed detoxification 24 hour per day**
- Utilising 10 beds at Chapman Barker Unit
- 5-7 day admission multi-disciplinary team, 24 hour hospital at night and medical support specialist individual and group PSI therapies
- Emphasis on engagement in aftercare and recovery communities

£750 k funding secured from SHA from November 2012
Main Aims and Outcomes

1. To reduce burden on Acute Trusts in relation to alcohol related admissions
   Sub-groups
   Frequent fliers - highest users of services, repeat short term admissions, complex physical and mental health issues. Improved working with frequent flier teams care planning and follow up
   Acute presentation in withdrawal - potential benefit of earlier specialist intervention, detox completion and engagement with aftercare

2. To improve clinical outcomes for service users

3. To provide improved experience for service users in a therapeutic setting

4. To demonstrate cost effectiveness
Admission by referring hospital

Total 636

- Salford Royal
- MRI
- NMGH
- Royal Oldham
- Royal Bolton
- Fairfield
- Rochdale
- Stepping Hill
- Wythenshawe
- Tameside
- Trafford
Known to Alcohol and Mental Health Services

Alcohol Services
- Not known to alcohol services: 19.20%
- Previous alcohol treatment: 29.70%
- Current CAT: 49.10%

Known to Mental Health Services
- Not Known: 52%
- Previous MH: 30%
- Current MH: 18%
Referring Ward/ Reason for Referral

**Referring Ward**
- A&E 33.9%
- AAA/CDU 16.8%
- WAU/MAU 29.5%
- General Ward 19.8%

**Reason for referral**
- Seizure/wit 53.2%
- DSH 27.9%
- Physical 18.9%
Aim 1: Reduced Burden

Length of Acute Hospital Admission (n=339)

RADAR patients:
- 78 (23%) acute admissions avoided i.e. straight from A&E

Of those admitted to acute:
- 39% no overnight stay
- Only 9% over 2 nights
JMU Telephone Survey Outcomes

98 patients by JMU Researchers
6/12 pre and post RADAR outcomes
89.6% drinking less/abstinent
Attending Alcohol services:
47% pre RADAR
69% post RADAR

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Z score</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A&amp;E visits pre RADAR</td>
<td>3.16</td>
<td>9.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A&amp;E Visits post RADAR</td>
<td>0.55</td>
<td>1.15</td>
<td>-5.79</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Overnight hospital stay pre RADAR</td>
<td>2.26</td>
<td>9.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overnight hospital stay post RADAR</td>
<td>0.28</td>
<td>0.65</td>
<td>-5.28</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
Aim 1: Reduced Burden

Hospital Use 3 Months Pre- and Post- RADAR (n=79)

Data from Salford, Wigan and Bolton

In 3 months post-RADAR:
• 53% no hospital use
• 70% no admissions
• 73% no overnight stay

At 6 months (n=26)
• 42% no hospital use
• 54% no admissions

* post-RADAR bed nights skewed by two individuals who had 72 bed nights
Aim 2: Improved Clinical Outcomes

Completed Treatment (n=636)
• 604 completed detox (95%)

Planned Stay
• 600 stay 5-7 nights (88%)
• 32 shorter stay (5%)
• 44 extended stay (7%)

Planned Discharge
• 591 - planned discharge (93%)
• 10 - completed detox, but left early (1.5%)
• 32 - unplanned discharges (5%)
• 3 - completed detox, transferred to hospital or CBU (0.5%)
Aim 2: Improved Clinical Outcomes

Rates of recovery and abstinence

4 week Follow Up of Successful discharges (n=250)

15% outcome not known
Of those known:
74% Abstinent or Controlled

3 month Follow up:
32% outcome not known
Of those known:
59% Abstinent or Controlled
Aim 3: Patient Experience

Service Satisfaction Scale (Residential)

Total Satisfaction:
80% Delighted
20% Mostly Satisfied
## Benefits Realisation Ideal 80% occupancy

<table>
<thead>
<tr>
<th>Index Admission</th>
<th>OBN (p.a)</th>
<th>Tariff Liberation</th>
</tr>
</thead>
<tbody>
<tr>
<td>22% transfer from A&amp;E (admission avoided)</td>
<td>221</td>
<td>£161,000</td>
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<tr>
<td>33% transfer same day (bed night avoided)</td>
<td>334</td>
<td>£245,000</td>
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<tr>
<td>24% stay only one night (reduced length of stay)</td>
<td>131</td>
<td>£90,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>686</strong></td>
<td><strong>£496,000</strong></td>
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</table>
## Benefits Realisation Actual Year 1 (55% occupancy)

<table>
<thead>
<tr>
<th>Index Admission</th>
<th>OBN (p.a)</th>
<th>Tariff Liberation</th>
</tr>
</thead>
<tbody>
<tr>
<td>22% transfer from A&amp;E (admission avoided)</td>
<td>164</td>
<td>124,325</td>
</tr>
<tr>
<td>33% transfer same day (bed night avoided)</td>
<td>246</td>
<td>£186,487</td>
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<tr>
<td>24% stay only one night (reduced length of stay)</td>
<td>98</td>
<td>£73,978</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>508</strong></td>
<td><strong>£384,791</strong></td>
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# Benefits Realisation

<table>
<thead>
<tr>
<th>Readmission</th>
<th>OBN (if 6 m)</th>
<th>Tariff (if 6 m)</th>
<th>OBN (if 12m)</th>
<th>Tariff (if 12m)</th>
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</thead>
<tbody>
<tr>
<td>75% not readmitted to acute bed in 3 months post RADAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Frequent Flyer</td>
<td>1129</td>
<td>£826,443</td>
<td>2257</td>
<td>£1,652,886</td>
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<tr>
<td>Acute presentation</td>
<td>139</td>
<td>£101,928</td>
<td>376</td>
<td>£275,481</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>1268</strong></td>
<td><strong>£928,371</strong></td>
<td><strong>2633</strong></td>
<td><strong>£1,928,367</strong></td>
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</tbody>
</table>

**Summary Total Savings**

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Index Admission</td>
<td>686</td>
<td>£496,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-admission</td>
<td>2633</td>
<td></td>
<td></td>
<td>£1,928,367</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3319</strong></td>
<td></td>
<td></td>
<td><strong>£2,424,367</strong></td>
</tr>
</tbody>
</table>
## Estimated Money Savings – Year 2

<table>
<thead>
<tr>
<th>Description</th>
<th>6 months</th>
<th>12 month</th>
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<tbody>
<tr>
<td>General bed-nights saved due to RADAR admission</td>
<td>£517,594</td>
<td>£517,594</td>
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<tr>
<td>A&amp;E attendances</td>
<td>£104,929</td>
<td>£209,858</td>
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<tr>
<td>Hospital admissions</td>
<td>£1,008,410</td>
<td>£2,016,820</td>
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<tr>
<td>Outpatient attendances</td>
<td>£34,305</td>
<td>£68,610</td>
</tr>
<tr>
<td>GPs</td>
<td>£23,085</td>
<td>£46,170</td>
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<tr>
<td>Other detox</td>
<td>£9,471</td>
<td>£18,942</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£1,180,200</strong></td>
<td><strong>£2,360,400</strong></td>
</tr>
<tr>
<td><strong>TOTAL BENEFITS</strong></td>
<td><strong>£1,697,794</strong></td>
<td><strong>£2,877,994</strong></td>
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<tr>
<td><strong>RADAR COST</strong></td>
<td><strong>£884,315</strong></td>
<td><strong>£884,315</strong></td>
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<tr>
<td><strong>BENEFIT - COST</strong></td>
<td><strong>£813,479</strong></td>
<td><strong>£1,993,679</strong></td>
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Final Summary

• Pilot Project ended on 31\textsuperscript{st} October 2013
• Agreed Funding for a further 18 months (6 months + 12months) until March 2015
• Funding source is via the Greater Manchester CCG further 12/12 from April 2016 recently approved.
• Huge benefit for Acute Trusts and Commissioners in managing A&E acute bed pressures.
• Huge benefit to our patients!
• Royal College of Psychiatrists Team of the Year (non age specific) 2014!