Fitness for Purpose in Infection Control
Martin Kiernan, Southport and Ormskirk Hospital NHS Trust
A Webber Training Teleclass

Infection Prevention and Control Teams
Ensuring fitness for purpose
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Hosted by Debbie King
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50 Years on....
• It all began in Torbay in the South of England

The most recent UK guidance
• Cooke, 1995
• Role of the ICT
  ◦ Implement annual programme
  ◦ Policy production
  ◦ Decision making
    • Medical and Nursing
  • “on the management of infected patients and other infection control problems”

Infection Control Teams (1995)
• Functions
  ◦ Outbreak identification and control
  ◦ Education of hospital staff
  ◦ Policy preparation
  ◦ Annual programme that includes surveillance
  ◦ Provision of an annual report to the CEO
  ◦ Occ Health Liaison
  ◦ Liaison with clinical teams on the development of standards
  • But rudimentary surveillance only

Change in my professional life
• 1990-1996
  ◦ 1 ICN for
    • 1000 DGH beds
    • 1000 MH hosp beds
    • 200 nursing and residential homes
    • 35 General Practice Surgeries
    • 100 schools and nurseries
  ◦ 1 0.5 WTE microbiologist
  ◦ No defined IC time
  ◦ No administrative support
  ◦ Also was Tissue Viability Service

By 2006
• Acute 700 bed hospital
  ◦ 2 Medical Microbiologists
  ◦ 1 Nurse Consultant
  ◦ 2 Specialist Nurses
  ◦ 1 Surveillance Nurse
  ◦ 1 Administrator

Currently in 2009
• Reducing
  ◦ Beds, now 580
  ◦ Length of stay for less risky procedures
  ◦ Admissions for some procedures

• Increasing
  ◦ Admissions up 18% over the previous year
  ◦ Age and dependency of inpatients
  ◦ Invasive clinical procedures
  ◦ Surveillance
  ◦ Screening
  ◦ Requirement for information and performance feedback
  ◦ Requirement for specialist input

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Differences were evident

- In the US, Infection Control team members were undertaking surveillance
- This was not happening in the UK as 'teams' were often one person
- Murphy (2002)
  - "from expert data collectors to interventionists: changing the focus for ICPs"

What's been happening to Teams?

- Infection Prevention and Control Teams have evolved 'on the job' by reacting to external stimuli rather than by a conscious process
  - Very difficult to keep pace with demand for new skills
- Evolution/Revolution for Medical Practitioners
  - Management and leadership roles
  - Additional roles, no defined expectation, little development
- Within a developing Patient Safety culture, IP&C has increased prominence in an Organisation
  - Have Teams achieved the same prominence?

How do teams work?

Findings from DH Support Team visits

- Traditional
  - High profile subject but team has low profile in organisation
  - "They phone us or pop in occasionally"
  - Highly reactive
  - Keep control and do...
  - Write reports

How do teams work?

Findings from DH Support Team visits

- Modern
  - Prominent team
  - Highly visible
  - Highly pro-active
  - Provide expert input for others to do
  - Use data to drive improvement

There are different models

- You could argue that organisations develop teams structures that work for them
- But that depends entirely on what the organisation wants from the team
  - Or what it thinks it wants
  - or doesn’t want...
- Team structures/numbers differ around the country

Team Numbers

- 2004 National Audit Office report noted 1ICN to 347 beds
  - Canada have a benchmark of 1 per 167 beds
  - US used to have a benchmark of 1 per 250 beds
    - Now heading towards 1 per 100

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Dutch Model
van den Broek et al, JHI (2007) 65, 108-111
- Examined the American Model based on SENIC
  • Out of date and relating to a totally different era
- Considered that the number of beds is not a useful denominator
- Proposed a model of 1 ICP to 5,000 annual admissions
  - 1 WTE Microbiologist per 25,000 admissions
- Based on that Model, my medium/small Acute Trust would require 6.5 WTE IPCPs and 1.2 WTE microbiologists
  - 50,000 admission hospitals could require ratios of 10:2
- Still does not take casemix into account

National Audit Office Report 09
- Produced in the summer of 2009
- Report to the public accounts committee on value for money of Infection Prevention and Control programmes
- Also provided a useful snapshot of the structure of Teams in the UK in the autumn of 2008

Team Membership in Whole Time Equivalents

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean per organisation</th>
<th>Mean beds per staff resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beds covered by Team</td>
<td>738</td>
<td>n/a</td>
</tr>
<tr>
<td>Infection Control Nurses</td>
<td>3.9</td>
<td>189</td>
</tr>
<tr>
<td>Infection Control Doctors</td>
<td>1.12</td>
<td>641</td>
</tr>
<tr>
<td>Antimicrobial Pharmacists</td>
<td>0.85</td>
<td>872</td>
</tr>
<tr>
<td>Audit/Surveillance</td>
<td>0.53</td>
<td>1392</td>
</tr>
<tr>
<td>IT Support</td>
<td>0.28</td>
<td>2636</td>
</tr>
<tr>
<td>Clerical support</td>
<td>0.91</td>
<td>811</td>
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</table>

Most worrying
- On average, organisations were carrying 0.77 WTE vacancies for Infection Control Nurses
- 48% reported difficulties in filling these posts
- 73% of ICN posts were filled with unqualified practitioners

Team shortfalls
- 6% had no Infection Control Doctor
- 14% had no Antimicrobial Pharmacist
- 57% had no Audit/Surveillance staffing
- 69% had no Information support
- 17% had no clerical support

Staffing levels
- There is no magic number
- 1 per x beds does not reflect
  - Organisational workload
  - Risk presented by procedures undertaken in the organisation
  - Geography
  - Local population characteristics
- Remember: Bed numbers can go down as well as up
- A report produced for the National Audit Office by Thames Valley University in 2003 showed wide variations in practice internationally
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Types of Organisation
- NHS Healthcare Organisations
  - Acute Trust
  - Primary Care Trust
  - Mental Health Trust
  - Ambulance Trust
- Social Care Organisations/Partnerships
- Independent Healthcare Provider
- Health Protection Agency

Where do other Agencies fit in?
- In the UK, the Health Protection Agency has the national lead for surveillance of HCAI
- Level of local support from Health Protection Units is very variable across the country
  - Sometimes fulfil IPC functions under SLAs
  - Sometimes have very little involvement in local IPC issues
  - Care home support a case in point
- Quite a few ICNs were taken into the HPA
  - Many have now returned to PCTs as posts became available

Mental Health Services
- Different or not?
- Varying models in use around the UK
  - Some rather small teams
  - Some extremely large teams
- Core function assessment vital

Ambulance Provision
- Some Ambulance Services have recognised the importance of IPC and have looked to meet service needs
- Acute care
  - Risks to patients and staff if IPC not embedded
  - IPC fits into the Health and Safety/Risk or Governance structures
- Definitely need
  - Director of Infection Prevention and Control
  - Expert clinical lead
  - Formal mechanism for Medical Microbiology advice

Primary Care Organisations
- Commissioning is the one area where the traditional model doesn’t fit
  - No operational aspect
- Advice to commissioners is vital when contracts are set and performance monitored
- Potential for conflict of interest if same team covers service provider arm
- Boards need assurance

Core Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Acute</th>
<th>Comm PCT</th>
<th>Provider PCT</th>
<th>Mental Health</th>
<th>Ambulance</th>
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<tr>
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<td>✔</td>
<td>✔✔</td>
<td>✔</td>
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<td>✔</td>
<td>✔✔</td>
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<td>✔</td>
<td>✔✔</td>
<td>✔</td>
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<td>✔</td>
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<tr>
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<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Performance</td>
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<td>✔</td>
<td>✔</td>
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What does an organisation need from its IPC Team?
- Provide the capability to meet Organisational objectives
  - Patient safety focus of no avoidable infections
  - Facilitate best practice
- Education and training
  - Embedding Infection prevention and control into all healthcare systems
  - Motivational skills are vital
- Truly Multidisciplinary
- To be both proactive and reactive

What else do they do?
- Facilitate the implementation of relevant research
- Provide the Board with assurance (or alert when assurance cannot be made)
- Advise the organisation on local requirements for specialist Infection Prevention advice
- Lead IPC programme
  - Education
  - Policy
  - Surveillance / data / audit
  - Risk Assessment / Management

What should a team provide?
- Expert Clinical Resource
- Monitoring against defined local and national standards
- Consultancy on capacity planning and the strategic direction of the organisation
- Communication
- Interaction with external agencies
- Curriculum development with ext. education providers
- Succession planning and career development

Requirements of a team
not mutually exclusive
- DIPC with strong clinical background
- Team manager (governance of the team)
- Expert clinical advisor on IP&C
- Expert Microbiological expertise
- Pharmacological expertise
- Decontamination expertise
- Data analyst / Statistician / Epidemiology / IT expert
- Administrative support
- Researcher (for some organisations)

What is the required skill set?
- All are transferable and this should be recognised
  - Data analysis, interpretation and presentation
  - Educational
  - Motivational
  - Facilitation
  - Innovation
  - Leadership and influencing
  - Managerial
  - Policy development
  - Role model at all levels
  - Strategic/Operational
  - Cohesiveness / Team building

Specialist skills
- Expert clinical advice
- Outbreak management and Incident response
  - decision making when only limited information is available
- Filtering/interpreting information from DH, SHA, PCT and passing this on
- Risk assessment specific to IP&C issues
- Influencing National, local, regional Agendas

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DIPC Role Crucial

- Implementation has been variable
  - some have embraced
  - some have not
- Does it matter who it is?
- Certain skills are mandatory
  - Communication
    - Ability to take people with them
  - Strategy
  - Management
- And they must have power

Developing the Team Structure

- Understanding the organisational needs
- Full assessment prior to implementation
  - Type of business and the risk that this presents to the users and the organisation
  - Workload/capacity
  - Clear objectives for the team
  - Local considerations
- Role of the DIPC and their support mechanisms

What could IPCTs look like?

- Directorate / Divisional liaison vital
  - Defined link person
  - Reporting through Governance and Risk Structures
  - Still retain corporate function
- Some of us find it VERY difficult to ‘let go’
- Need to look at staff being appointed to new IPC posts
  - Have they the capability to be developed
  - Should we be bringing in people at a higher level who have the other skills and giving them the specific clinical skills

Questions for Organisations

- Who should be the clinical lead of the Team
  - Do all medical microbiologists want or have the capacity to commit the time required to be the clinical lead?
  - Have all IPCPs the skills to undertake this role?
- Should all IP&C Practitioners be nurses?
  - Other disciplines have the necessary skills and the potential for development
  - It is appropriate to start people at a low grade?
- Should teams have a manager who is not the clinical lead?

Newer ways of working

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Building the Teams of the Future

- IPCTs are working hard, but are we working smart?
- Review
  - Strategic objectives of the organisation
  - How to meet these either from within the team or how the deficit can be addressed
- Wouldn’t it be nice to have some breathing space to do this...
What is absolute

- Every organisation must have a charismatic champion who can take people with them
- Infection Prevention programmes require motivational skills to encourage practitioners to do what they know is right

The tools of our trade..

Samuel Butler (1612-80)

He that complies against his will is of his own opinion still

Nothing matters until it is personal

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