Case Study: NHS Doncaster Primary Care Trust
Improving Infection Prevention and Control Knowledge and Practices in Care Homes in Doncaster

Summary

The focus for this case study is the actions that NHS Doncaster Primary Care Trust (PCT) took to improve the infection prevention practices in nursing and residential care homes across the borough of Doncaster. The aim of the project was to develop an approach to improving the infection prevention knowledge within the care home workforce and, by doing so, reduce the risk and incidence of healthcare associated infections (HCAIs) and improve the quality of care. One of the key objectives of the project was to introduce an audit culture that encouraged self-assessment against best-practice and resulted in continuous improvement. A secondary aim was to develop closer working relationships between the PCT, the care homes and other key stakeholders such as the local authority, Doncaster Metropolitan Borough Council.

Readers of this case study will be able to consider information and top tips about how a commissioning organisation can successfully work with multiple provider organisations to understand the need for and drive improvements to infection prevention and control knowledge and practice. In this case success was achieved by starting with an audit to ensure a complete understanding of the current situation and using this exercise to establish closer working relationships with the provider organisations from the outset.

The case study also provides ideas about how to ensure the success of a process improvement programme and detail about the successful development of a HCAI prevention training programme for care home staff. In summary, the first key step is to gather evidence to justify the need for the change programme and to guide the particular shape that the changes should take. Other key steps include refining the options to meet particular needs – i.e. taking a tailored approach as much as practicable – and ensuring that communications emphasise the purpose of the project (in this case, undertaking an audit in order to understand how best to assist, not to penalise).

Introduction

The PCT’s efforts were part of a focused programme of work that was developed and implemented by the PCT in response to an increased awareness of the lack of skills and knowledge concerning HCAI prevention and control in care homes. This awareness had been growing since the introduction of the methicillin-resistant *Staphylococcus aureus* (MRSA) target in 2004 and the *Clostridium difficile* target in 2007. With the 2008 announcement regarding the creation of the Care Quality Commission (CQC) and the fact that health and social care providers, including care homes, would have to meet the CQC’s HCAI-focused registration requirements, the PCT decided to act.

The project consisted of a multi-pronged approach that included the creation of a new, fixed term role; a 0.5 WTE band 6 Infection Prevention and Control Practitioner, who had responsibility and accountability for delivering the project, with the support of the PCT Infection Prevention and Control Team.

The project activities included:

- Developing an understanding of what the appropriate level of infection prevention and control training for care home staff is
- An audit of the care homes that focused on identifying the level of infection prevention and control training being provided to care home staff
Analysis of the material collected via the audit and the development of a list of options/activities aimed at improving infection control knowledge and practices
The development and roll out of a training and education programme for care home staff
The development of an accreditation programme for the care homes
A pilot project to test and refine the accreditation programme criteria and approach.

Context
NHS Doncaster is responsible for improving health of and commissioning the NHS services for the 300,000 people who live in the borough of Doncaster.

There are 60 nursing, residential and elderly mental illness care homes across Doncaster. The PCT worked with a random sample of 10 care homes across the borough in order to undertake the audit and develop the training and accreditation programmes. All of the care homes that the PCT worked with provided care for older people (i.e. +65 years) and one also provided care for adults (i.e. +18 years) with physical disabilities.

Several of the homes belonged to larger providers, e.g. Four Seasons, which owns 11 care homes across Doncaster (and more than 400 care homes in the UK), Doncaster Metropolitan Borough Council (DMBC), which owns 9 care homes across Doncaster, and Southern Cross, which owns 5 homes across Doncaster (and more than 720 care homes in the UK). The PCT was pleased to work with these larger organisation as they hoped that this would have the added advantage of enabling successful changes in practice to be filtered through to the other care homes under their management.

Challenge
The initial challenge that meant that NHS Doncaster decided that effort in this area was required was the upcoming requirement for care homes to meet the CQC’s registration criteria, which include significant HCAI prevention and control elements. The PCT realised that care home infection prevention and control skills and knowledge were not at the right level, but that there was limited understanding of how big the skills and knowledge gap was. Initially, the PCT just wanted to understand the size of the gap by undertaking an audit. However, they quickly realised that there were big enough issues with practice in this area to warrant immediate action and the project scope was expanded to include designing a method or methods for addressing the gap.

Once the project was underway, the main challenge for the project team to overcome was how to reassure the care homes that the audit was not an ‘inspection’ and that it was not being done in order to gather evidence for punitive action. Accurate completion of the questionnaires was essential to ensuring the success of the project – inaccurate results would have invalidated the outputs of the analysis and any subsequent decisions about what next steps to take. Because audits are usually viewed in a negative manner, the care homes took some convincing of the need to respond to the queries without trying to influence the outcome. Also, the care homes needed careful relationship management to convince them that the PCT had no hidden agenda behind the project. NHS Doncaster took a lot of time and care over managing these aspects (via careful communications, one to one relationship management and ensuring that any correspondence or engagement backed up the message that the PCT was there to help) and believes that the audit results were more useful because of this.

Some of the other challenges that had to be overcome were:
  - Defining an appropriate infection prevention and control training standard that they could hold up as the ideal and ensuring that the care homes accepted this standard
  - Assumptions regarding the ability for staff to manage and complete training on their own
  - Assumptions regarding the level of HCAI training that staff working at the care homes had already completed as part of their initial training.
Success criteria
The success criteria, as defined at the outset of the project, were:

- The successful promotion of best practice in infection prevention and control as evidenced by changes in practice and, amongst other more quantifiable measures, the increased availability of hand-washing facilities
- The creation of a more knowledgeable workforce as evidenced by the numbers of staff that completed the training courses
- The provision of cleaner, safer care as evidenced by compliance with national/ regional and local guidance on infection prevention and control best practice
- Improved processes and the adoption of a continuous quality improvement culture at the care homes as evidenced by increased use of audit and self assessment in order to monitor and improve practice
- Improved communication and relationships between the care homes and the NHS Doncaster Infection Prevention and Control Team, as evidenced by easier and more frequent communication and an aligned approach to preventing and controlling HCAI
- Improved working relationships with other stakeholders, such as the Health Protection Agency (HPA) and the relevant teams within the local authority as evidenced by easier and more frequent communication and a collaborative approach.

Activity

*Developing an understanding of what constitutes ‘appropriate’ infection prevention and control training for care home staff*

The first step for the project team to consider was the standard or approach that could be held up as best practice for infection prevention and control training within care homes. In order to understand this the NHS Doncaster Infection Prevention and Control Team reviewed commonly used guidance material, such as:

- The Infection Prevention Society's *Audit Tool for Monitoring Infection Control Guidelines in Community Settings* (2005)
- The Department of Health’s *Infection Control Guidelines for Care Homes* (2006)

The information from these and other relevant guidance materials was used to develop the audit tool. The rationale for this was that using these national guides would ensure that the tool was appropriate and that the PCT could not be accused of any motive other than the improvement of infection prevention and control training, knowledge and processes within the care homes.

*Initial audit*

The purpose of the initial audit was to establish what infection prevention and control training was available to care home managers, nurses, care workers and domestic staff, at the time of their induction and throughout their time as staff at the care homes. The NHS Doncaster Infection Prevention and Control Team developed an 18-question, 2-page audit tool that they worked through with a random sample of 10 care homes across the borough. A copy of the audit tool is attached as appendix 1.
The key findings of the audit were:

- All of the care homes offered in-house training
- Often the in-house training was supported by the offer of accredited qualifications from further education (FE) providers
- The FE accredited qualifications were predominantly correspondence courses, although some included observation of practice and in some cases assessors visited workers to provide additional guidance.

However, despite these findings, investigations into the levels of competence/confidence of staff and actual practice, resulted in the audit team concluding that, while on face value the level of training and support might appear to be sufficient, it was difficult to quantify the influence such training has on improving infection prevention and control practices and preventing HCAI.

The most significant conclusions from this exercise were:

- The impact of in-house training on infection prevention and control practices, even when the qualifications are accredited, is sometimes minimal
- Some care workers do not have the literacy skills to work through the correspondence packs, which are produced at Level 2/GCSE Grade C
- Qualified nurses working in care homes in the independent sector appear to be a neglected group with regards to infection prevention and control training and they are often unaware of some of the opportunities available to them
- Managers often assume that qualified nurses know about infection prevention and control practices and that they have been trained to adopt appropriate practice. This is worrying considering the position this puts them in, as defined by one respondent from the Nursing and Midwifery Council, who said: “The nurse is ultimately responsible for ensuring they have the knowledge and skills required for safe practice and would be personally accountable for errors which occurred as a result of their lack of competence”.

**Information analysis**

As a result of the audit, and ongoing collaboration with care home managers, the PCT identified 16 potential areas or ideas for development/action. Following a prioritisation exercise, they narrowed this down to: 1) Improving relationships/networking; 2) Developing a training and education programme for care home staff; and 3) Developing a care home accreditation package.

**Improving relationships/networking**

The project team realised that providing or increasing the opportunity for both the PCT Infection Prevention and Control Team and care home staff to work more closely with other organisations with an interest in infection prevention and control in the community would be invaluable. Their efforts to encourage relationship building/networking have helped to clarify roles, encouraged cross-organisational working and enhanced service delivery by minimising the risk of organisations being provided with differing advice.

The project team has made is a priority to review communications and improve relationships with the following local groups/teams:

- The Infection Prevention and Control Collaborative Group (which is chaired by the Health Protection Agency)
- The Care Home Liaison Group
- The Quality Care Partnership (QCP) Forum and associated Users Forum
- The Doncaster Metropolitan Borough Council Contracts and Monitoring Team
- The Doncaster Metropolitan Borough Council Training and HR Team
- The Doncaster Metropolitan Borough Council Corporate Services Team
- The Further Education providers that provide infection prevention and control packages, such as Doncaster College, Rother Valley College, Selby College and Sheffield College.
The NHS Doncaster Infection Prevention and Control Team have approached this from the position of promoting the message that they are “here to help” and support the achievement of improved HCAI prevention practices and patient care, which has made their efforts well received.

**Developing a training and education programme**

The NHS Doncaster Infection Prevention and Control Team negotiated with the local authority and secured the funding to deliver the infection prevention and control training. Initially this was to be one full day of training per month for care home workers below manager level and one Royal Society for Public Health (RSPH) training programme over two half days for care home managers. Some places on these courses were also offered to private care providers.

The courses organised between November 2008 and March 2009 were quickly booked out so an additional care workers’ training day was arranged each month from January 2009. By the end of March 2009, 198 staff had completed the course appropriate to their role, with all courses positively evaluated. A 98% pass rate was achieved for the RSPH Level 2 Decontamination in Health and Social Care Settings examination (of the 198 attendees only three failed – one was an inappropriate attendee (a cook), one did not have strong enough english and one did not complete the course).

Additional training has been delivered across the borough as follows:

- 400 care home staff have received hand hygiene training for care workers in their workplace
- 28 care home staff have received hand hygiene and MRSA ‘train the trainer’ training to enable them to deliver in-house training – a total of 120 care home staff have since been trained by their co-workers
- 12 hand hygiene and MRSA training sessions have been provided for home carers.

This brings the total number of care home workers and carers that have received infection prevention and control training since the inception of the NHS Doncaster programme to 755.

**Care Home Accreditation Package**

One of the key objectives of the project was to introduce an audit culture that encouraged self-assessment against best-practice and resulted in continuous improvement.

There were already several audit tools available that could have been used. However, the PCT decided to develop a bespoke tool that was both reflective of national accepted best practice and appropriate to local policy and context. The tool formed part of the care home accreditation package, which was launched at the Matrons’ Conference on 18th November 2008.

The care home accreditation package consists of another audit tool that measures practice against nine standards that are matched to the CQC’s HCAI-focused registration requirements. It is also accompanied by an infection prevention and control resource file, so that the care homes being audited have access to information and an improved infection prevention and control knowledge base right from the outset.

As part of the development and refinement process, the accreditation package was piloted in 10 care homes across the borough, all of whom volunteered to take part. Each home piloted equated to approximately two days work for the NHS Doncaster project team. In each case the results of the pilot audit were delivered to the care home manager. They were then encouraged to consider the areas that the audit identified as requiring attention and develop an action plan.

The pilot project identified one major issue for all 10 pilot sites – the provision of hand hygiene facilities at the point of care, which the audit held up as an ideal arrangement. This expectation caused the care home managers concern as they were unsure about how this would be viewed by the CQC, which replaced the previous regulator, the Commission for Social Care Inspection (CSCI), in March 2009. Some managers were worried that the CQC would consider soap and paper towel dispensers to be inappropriate in residents’ rooms and this could impact on their star rating.
This was resolved by the CQC’s guidance regarding its new registration system, which included advice that the National Minimum Standards for Care Homes for Older People, published under section 23(1) of the Care Standards Act 2000 by the Department of Health in 2003, would continue to be the standard to which care homes would be held. The standards include the requirement that “systems are in place to control the spread of infection, in accordance with relevant legislation and published professional guidance” (standard 26.1), which means that care homes, like all other health and social care providers, must adhere to the Health and Social Care Act 2008 – Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance (the Code). The Code states that “a provider should normally, with a view to minimising the risk of HCAI, ensure that there is adequate provision of suitable hand-washing facilities and antibacterial handrubs” (compliance criterion 2g).

The results of the pilot were used to refine the accreditation package and plan for its roll out, which included the development of a business case to establish the accreditation package as part of Infection Prevention and Control Team’s ongoing work plan. The accreditation package has been rebranded and is now called the ‘Care Quality Commission (CQC) Registration Support Scheme’. The focus is now on supporting the care homes to meet the requirements of the CQC, as opposed to “accreditation”.

Achievements/outcomes
NHS Doncaster counts the project as a major success. The improved relationships with the wider infection prevention and control stakeholders across the borough have been sustained and more collaborative working with the care homes is now the norm. A number of the care homes involved in the project have been able to demonstrate an improvement in staff knowledge and competency in infection prevention control practices and the care homes have been able to demonstrate improved HCAI prevention and control processes, which has also proved beneficial for their efforts to gain CQC registration.

The major successes include:
- The continuation of the emphasis on ensuring staff have access to and complete infection prevention and control training
- Follow up visits to care homes found evidence of improved processes and an increase in the provision of hand-washing facilities
- Ongoing work to ensure that training materials and audit tools continue to comply with new national/ regional/ and local guidance on infection prevention and control – care homes across the borough now have much easier access to appropriate information about what is required of them
- NHS Doncaster is now confident that there will be a reduction in the incidence of HCAI in care homes over the long term (in the short term the incidence has remained static).

Sustainability and next steps
At the completion of the project a small team of three nurses (1 full time and 2 part time, totalling 2 WTE), was created to continue the work. Maintaining staffing at this level was not feasible given financial constraints, so this has been reduced to 0.5 WTE and the workload is being re-scoped to make it more manageable. The education workstream, run in conjunction with the local authority, continued until March 2010. The next step for this aspect is to consider how to continue to provide appropriate training with reduced resource. NHS Doncaster is confident that HCAI surveillance, which has now been improved to detect community-acquired infections, will identify any trends that warrant increasing the efforts in this area back to the scale of that done during the life of the project.

Lessons learnt
NHS Doncaster feels that the care homes project is a good model for working with any community organisation and has decided to take the learning from this and use it to develop a programme to support and prepare the 35 General Dental Practitioners across the borough for registration with the CQC. Currently (as of June 2010) 26 of the 35 practices are engaged in the programme. The key aspect of this programme is supporting the practices to ensure that they have a staff member with a nationally recognised qualification in decontamination and infection prevention and control. The programme of work also includes helping the practices to build a portfolio of evidence for the CQC, including self audit and train the trainer (both of which are based on the model used for the care home project). As part of the relationship building aspect of the work with the dental practices, the PCT has built on its learning from the care home project and nominated a link champion for each practice; their role is to be the conduit between the dental practice and the NHS Doncaster Infection Prevention and Control Team.

The key lessons learnt for NHS Doncaster, were:

- The benefits to be gained from matrix working with the local authority
- The benefits to be gained from being innovative and taking a new approach that suits the local context
- The project team motivation and resource levels were essential to the success of the project – once the project was concluded and the effort was made part of business of usual the motivation dropped slightly and when this was followed by a drop in resource the level of commitment also waned – drops in enthusiasm and commitment from the care homes soon followed
- Using appropriate branding and communication is essential – in hindsight the use of words like ‘audit’ and ‘accreditation’ were not appropriate as they put the care homes off taking part and created the perception that the project was about creating ‘yet another process’ – also ensuring that the care homes understood that the PCT’s motivation was purely about improving patient care and reducing infection levels and risk was essential to its success
- Providing the infection prevention and control training and the CQC Registration Support Scheme and future similar projects free of charge is now being reviewed – the PCT is considering whether or not a nominal fee or something requiring some kind of financial investment from the recipients would make them value taking part and the outputs more.

Contact information

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# Appendix 1: NHS Doncaster PCT – Care homes audit tool

| Criterion | Training | Covered during induction period? | If covered during induction when is it done? | Which members of staff have access to this training? | Is training provided in-house? | Do staff receive accredited training in IP&C? | What is the mode of training? E.g. NVQ, short courses, correspondence courses | If accredited training is provided/accessed, who is the provider? | Criterion | Training | Covered during induction period? | If covered during induction when is it done? | Which members of staff have access to this training? | Is training provided in-house? | Do staff receive accredited training in IP&C? | What is the mode of training? E.g. NVQ, short courses, correspondence courses | If accredited training is provided/accessed, who is the provider? |
|-----------|-----------|----------------------------------|---------------------------------------------|------------------------------------------------------|-------------------------------|-------------------------------------------|-------------------------------------------------|-------------------------------------------------|-----------|-----------|----------------------------------|---------------------------------------------|------------------------------------------------------|-------------------------------|-------------------------------------------|-------------------------------------------------|-------------------------------------------------|-----------|-----------|
| 1         | Main routes of infection | Y/N NA                          | Weeks 1 - 2                                 | Weeks 3 - 4                                         | Weeks 5 - 8                   | M N C D                                  | Y/N/NA                                         | Y/N/NA                                         | Please state | Please state |
| 2         | How to prevent spread of Infection |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
| 3         | How and when to use PPE     |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
| 4         | How to wash hands          |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
| 5         | How to correctly and safely dispose of waste |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
| 6         | How to deal with body fluid spills |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
| 7         | How to handle and safely dispose of sharps |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
| 8         | How to manage sharps/splash/bites including actions needed in the event of injury |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
| 9         | How to handle specimens    |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
| 10        | How to store vaccines and maintain cold chain |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
| 11        | How to do an aseptic technique |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
| 12        | How to safely deliver catheter care |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
| 13        | How to safely deliver enteral feeding |                                 |                                             |                                                     |                              |                                          |                                                |                                                |                                                |                                                |                                                |                                                |                                                |                                                |
14. Are records kept of infection prevention and control training undertaken by all staff? Y/N

15. Is there an ongoing training programme for infection prevention and control? Y/N

16. If answer to Q15 was yes, do you have a system that flags up when staffs are due an up-date? Y/N

17. How often are staff offered up-dates? Tick all that apply:
   a) On request
   b) Annually
   c) Every two years
   d) Other

18. Would you know who to approach for guidance and support with regards to infection prevention and control issues? Y/N
   If yes, who provides you with this guidance and support?