Infection prevention and control self-audit: just a tick box exercise?

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Abstract

The National Health Service (NHS) in England continues to experience ongoing change in order to complete the transition to the new delivery system outlined in *Liberating the NHS* (Department of Health, 2010a). Treating and caring for patients in a safe environment and protecting them from acquiring avoidable infections remains a high priority and a central quality improvement component within the outcome Indicator set for 2013/14 (NHS Commissioning Board, 2012a). Infection prevention and control practitioners will be required to use a range of innovative quality improvement strategies to facilitate engagement with clinicians and meet the challenges that lie ahead for the NHS. The purpose of this paper is to report on the implementation of an infection prevention and control self-audit (IPCSA) project within general practice. The aim of the project was to empower practice staff to become actively involved with an infection prevention and control (IPC) audit in order to support the development of an IPC quality improvement culture within general practice teams. The paper outlines the methodology used to implement self-audit. The findings suggest that IPCSA can be used as an effective alternative to an IPC nurse-led infection prevention and control audit.

Introduction

The new structure of the NHS is set out within a framework agreement between the Department of Health and the NHS Commissioning Board Authority (Department of Health, 2012). It outlines the role of the NHS Commissioning Board as an executive non-departmental public body of the Department of Health and places a duty on the board and Clinical Commissioning Groups (CCG) under the Health and Social Care Act (Department of Health, 2010b) to improve quality and outcomes (NHS Commissioning Board, 2012b).

Achieving and maintaining high standards of infection prevention and control (IPC) remains fundamental in order to ensure that patients experience a safe environment and are protected from acquiring avoidable

infections. Despite conflicting evidence about the efficacy of various types of audit, it continues to be widely used as a quality improvement technique (Millward et al, 1993; Bowie et al, 2010).

This paper outlines the implementation of an infection prevention and control self-audit (IPCSA) in a general practice setting. The rationale for implementing self-audit and its application in practice are discussed. The findings suggest that IPCSA can be used as an effective alternative to a nurse-led infection prevention and control audit.

Background

The history and proliferation of audit is well documented (Power, 1994; Holden, 1999; Bowerman et al, 2000; Humphrey and Owen, 2000; Bowie et al, 2009; Levy and Rockall, 2009). The role of audit within the National Health Service (NHS) in England was outlined as part of the government white paper 'Working for Patients' (Department of Health, 1989a). Working paper 6 (Department of Health, 1989b) specifically defined medical audit, but subsequent policy initiatives (Department of Health, 1998, 2000) reinforced the role and value of audit across the provision of evidence-based healthcare (Hill and Small, 2006).

The difference between audit and research is widely debated within the literature (Black, 1992; Closs and Cheater, 1996; Choo, 1998; Wilson et al, 1999; Lynn, 2004; Wade, 2005). Broadly, research sets out to investigate what should be done. Audit on the other hand sets out to check that what should be done is being done (Smith et al, 1992). However, the ethics of audit are questioned as it is viewed by some as a means of undertaking research without the scrutiny and rigour of an ethics committee (Rix and Cutting, 1996; Warlow, 2004).

Audit is recognised as a key element of IPC (Hay, 2006) and is described as the cyclical measurement of services against set standards. The aim of this is to improve quality by promoting adherence with standards (Paxton et al, 2006). Auditor independence and the discrete nature of the auditing process are recognised as key principles of audit (Ni and Karapetrovic, 2003).

Self-audit differs from this as the auditor is not independent or unbiased but is involved in the delivery of the core services. It is a

methodology based on internal audit and self-assessment. However, the loss of auditor independence can lead to the validity of self-audit being questioned (Karapetrovic and Willborn, 2001).

Regardless of the type of audit methodology used and uncertainty about which characteristics of audit and feedback produce the most effective outcomes (Ivers et al, 2012), audit is still recognised as having a positive impact on improvements in the quality of healthcare.

With this in mind an infection prevention and control nurse (IPCN)-led audit programme was initially implemented between September 2009 and August 2010 in all general practices within a small primary care trust (PCT). The purpose of which was to actively promote compliance with national infection control standards and provide the PCT with an indicator of general practice readiness for future registration with the Care Quality Commission (CQC).

Before the implementation of the audit programme the PCT Director of Infection Prevention and Control and the Medical Director formally wrote to all general practices to stress the importance of compliance with national IPC standards. Practices were informed that they were required to provide evidence that they had undertaken an annual infection control audit as part of their annual business review undertaken by the PCT. Practices were advised to invite the IPCN into their practice to undertake the audit. The uptake was limited but this was not wholly unexpected.

It is recognised that there is often a lack of healthcare professional engagement with audit (Davies et al, 2006). Increasing workloads, poor leadership, distrust, hostility, limited resources, time constraints and lack of knowledge or understanding of audit methodology are all cited as factors that hinder clinician involvement in audit (Johnston et al, 2000). In view of the failure of the IPCN-led audit programme and in an attempt to improve general practice staff involvement an alternative self-audit methodology was implemented.

Methodology

The IPCSA project was implemented across all general practices ($n=65$) within the PCT (excluding satellite practices) between September 2010 and December 2012. The project was implemented by an IPCN providing an IPC service to the PCT (via a service level agreement) three sessions per week as part of the IPCN's overall workload.

An audit tool for general practice was adapted from the Infection Control Nurses Association (ICNA, 2005) audit tool by the IPCN. The audit tool included hand decontamination; environmental cleanliness; the prevention of sharps injuries; personal protective equipment; safe disposal of waste; the management of linen; the management of blood and body fluid spillages; specimen handling; the vaccine cold chain; kitchen environment and decontamination of reusable instruments.

The project was supported by the PCT's Director of Infection Prevention and Control and the Medical Director, who sought agreement from the local medical committee to write formally to all general practices informing them of the launch of the IPCSA project. Practices were informed of a requirement to undertake an annual IPC self-audit, the purpose of which was to promote general practice compliance with national infection control standards.

The letter (addressed to the Practice Manager) explained that all individual practices would be required to provide evidence (as part of the annual business review process) that an infection control self-audit had been undertaken by the practice within the last 12 months. General practices were advised that the person undertaking the self-audit for the practice must be a member of clinical staff, i.e. a general practitioner, a practice nurse or a healthcare assistant. The general-practice-based auditor nominated by the practice to carry out the self-audit was advised to attend an annual (two and a half hour) training session delivered by the IPCN.

The letter also advised that if the practice required any support to complete the audit they should contact the IPCN via telephone or

email. In addition they could also arrange for the IPCN to visit the practice in order to explain the content or use of the audit tool face to face. The IPCN telephone and email contact details were included within the letter. A copy of the letter, self-audit training dates, self-audit training presentation and the adapted IPC audit tool were forwarded to practice managers in both hard copy and in electronic format. This ensured that even those practices who chose not to contact the IPCN for advice or attend the training sessions received as much information as possible.

The IPCSA project was also promoted within general practice by the Primary Care Contract Manager, who sent out ad hoc reminders for practices to complete an annual self-audit via email. The Primary Care Lead Nurse also encouraged practice nurses to become involved in IPCSA informally during monthly practice nurse forum meetings.

The IPCSA training session delivered by the IPCN consisted of two elements. First, there was a presentation outlining the rationale for the project and the implication for general practice of the Health and Social Care Act (including the future requirement for general practices to register with the CQC). The second half of the training session took the form of an open discussion around the audit tool sections, the wording of questions, how to complete the tool and where to send their completed audit. Two identical training sessions (one in September and one in October) were delivered by the IPCN annually during the duration of the IPCSA project. Out of a total of 65 general practices involved in the project, 32 practices sent a clinical representative to the self-audit training during the duration of the audit project.

Clinical practice staff were asked to complete an IPCSA (in either hard copy or electronic format) annually for their practice. They were asked to send one copy of the completed audit to the Primary Care Contract Officer (to insert a copy in the practice's file) and one copy to the IPCN. The IPCN then reviewed the self-audit submitted by the practice and formulated a summary report of the non-compliant audit criteria. This was then returned to the practice electronically by the IPCN. A spreadsheet was used over the duration of the IPCSA project by the IPCN to document those practices who had submitted a completed audit, the date it was submitted, and the practice compliance score.

A minimum compliance score was not set. This decision was made to encourage practice staff participation and place an expectation on practices that they should aim for 100% compliance. Any audit criteria marked non-compliant required the practice to formulate an action plan to include a date for completing any action required, the control measures in place to mitigate any identified non-compliance or associated risks, and a review date. This would be held locally within the practice.

A communication log (in the form of a spreadsheet) was set up by the IPCN in order to document all general practice initiated contact with the IPCN. The purpose of this was to be able to monitor general practice initiated contact relating specifically to IPCSA. The communication log was maintained continuously by the IPCN between April 2010 and December 2012. This included the period before implementation of the IPCSA project (April 2010 to September 2010) in order to show the baseline level of contact between the general practice and the IPCN before the implementation of the self-audit project. No additional control measures were implemented during the duration of the IPCSA project to avoid bias by positively or negatively influencing the findings.

Results

General practice staff initiated contact with the IPCN in relation to audit between April 2010 and the end of December 2012, as demonstrated in Figure 1. The black arrow indicates the implementation of the IPCSA project in September 2010. The graph demonstrates that

Figure 1. General practice staff initiated contact with infection prevention and control nurse (IPCN) for audit

Figure 2. Total number of general practices initiating contact with infection prevention and control nurse (IPCN) for audit

contact initiated by general practice staff in relation to audit with the IPCN increased from April 2011 onwards, six months after the implementation of the IPCSA project. This lag was not unexpected as general practices were advised that one submission of the IPCSA was required per financial year (April to March). In addition, they were advised that the audit tool could be completed in discrete sections over the year in order to fit the self-audit around their day to day workload.

Figure 2 demonstrates the number of general practices that initiated contact with the IPCN by financial year (out of a possible 65 each year). It includes all types of general practice initiated contact with the IPCN (not just audit). It demonstrates that general practice staff initiated contact with the IPCN for 'signposting' (to other agencies) and 'other' requests (for non-audit-related IPC information/advice) remained relatively consistent between 2010 and 2012. However, the number of general practice contacts in relation to the IPCSA project increased significantly over the period of the project from 8% (5 of 65 practices) between April 2010 to March 2011, 55%

(36 of 65 practices) between April 2011 to March 2012 and up to 60% (39 of 65 practices) in April 2012 to December 2012.

All 65 practices (100%) submitted a completed IPCSA between April 2011 and March 2012. The number of completed IPCSAs submitted in the following financial year was 41 (63%), which reflects a submission percentage rate for an incomplete financial year (nine months). However, it cannot be assumed that the percentage would have been higher had the project continued until the end of the financial year.

The project was brought to a close in December 2012 in order to undertake workload priorities arising as a result of the planned abolition of the PCT at the end of March 2013.

Discussion

The findings need to be interpreted with caution as the requirement for general practices to register with the CQC undoubtedly positively influenced the involvement in IPCSA of general practice staff. However, it is also important to consider aspects of the self-audit methodology that

may have also contributed to an improvement in practice staff involvement with IPC audit.

Self-audit may have been viewed as less intrusive by practice staff due to the fact that it is designed to be undertaken by a member of the team delivering services rather than an external auditor. Furthermore, it could be argued that traditional audit led by an external auditor implies a lack of trust whereas self-audit is designed to empower staff (Skinner and Spira, 2003). However, the IPCSA process could be viewed as a quasi self-audit process as the completed IPCSAs (although undertaken by practice staff) were shared externally with the PCT and the IPCN. This may have exerted positive pressure on general practices to participate. It is also not possible to assess whether this had a negative effect on practice staff's perception of the trust implied by the self-audit methodology.

Adult education theory suggests that learning is most likely to take place when the healthcare professional is involved in monitoring his or her own performance. The identification of gaps in knowledge or skills stimulates the healthcare professional to engage in learning and address identified knowledge or skill gaps (Schon, 1987; Kaufman, 2003). This may explain why IPCSA facilitated improved general practice staff involvement with IPC self-audit.

Zwarenstein et al (2009) regard externally facilitated audit as a practice-based interprofessional collaboration intervention. This is when a routine or a tool is integrated into clinical practice to support the type of interaction, between a team of healthcare professionals, that is required to bring about quality improvement. However, they recognise that the effectiveness of such an intervention is reliant on the ability of a team to work together effectively.

Engaging clinicians is recognised as an essential prerequisite for the success of any quality improvement initiative (Siriwardena, 2009). If the number of contacts outlined in the findings is taken in context with the total number of practices submitting an IPCSA, it is clear that there were practices who submitted an IPCSA without making any contact with the IPCN. It is not clear why practices chose not to attend training. Anecdotally, work pressures and the fact that only two training dates were provided were reasons given by some practices for not attending the training. However, this does not necessarily erode the overall potential of IPCSA to promote quality improvement within these practices.

Furthermore, although it may be viewed as controversial by some, it cannot be assumed that practice staff purely using the training resources (that were sent out to all practices) could not successfully carry out an IPCSA and identify where changes may be required without the input of the IPCN. Furthermore, no correlation in the data was

identified to suggest that general practice initiated contacts with the IPCN were greater in those practices where practice staff attended audit training delivered by the IPCN.

Conclusion

The paper reports on the implementation of an IPCSA project within general practice. The aim of the project was to improve the involvement of practice staff with IPC audit in order to support the development of an IPC quality improvement culture within practice teams. The rationale for implementing an IPCSA project was outlined before detailing the self-audit methodology used.

The findings are based on a very small scale project with limited IPCN resources. However, despite the limitations an overall increase from 8% to 60% improvement in the number of general practices initiating contact with the IPCN while taking part in the IPCSA audit was observed over the duration of the project. The findings suggest that practice staff undertaking IPCSA were making attempts to address gaps in knowledge or skills identified as a result of their self-audit. However, there is no evidence to validate whether quality improvements were actually implemented by those practices engaging with the project.

Furthermore, although it is recognised that the requirement for practices to register with the CQC undoubtedly positively influenced the involvement of practice staff with the IPC audit it would not be unreasonable to suggest core differences between traditional audit and self-audit methodologies (such as general-practice-based auditors, general-practice-based ownership and a focus on quality improvement rather than on numerical-based audit scores) may have contributed to the improvement in general practice staff involvement in IPCSA.

The importance of gaining stakeholder support should not be underestimated if self-audit methodology is to be successfully applied in larger studies within other areas of healthcare provision such as care homes, acute wards or outpatient departments. The IPCSA project provided practice staff with a quality improvement strategy that they were able to implement around their day to day work facilitating practice ownership and team involvement.

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Declaration of conflicting interest

The author declares that there is no conflict of interest.

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