

CREATIVE INFECTION CONTROL SERIES

Awareness and Educative Tools The Team Challenge Quiz

Abstract

Infection Control practitioners (ICP) all share a common dilemma in striving to gain staff compliance to new or existing practices. Whether the role be that of change agent or educator simply reinforcing current practices, resulting compliance will be dependent upon the skills and ingenuity of the ICP. Consequently, much valuable time is spent by ICP searching for new methods, which will make either new infection control practices appear exciting and interesting, or simply stimulate staff to look at existing, mundane practices in a new way.

Crucial to acceptance of any Infection Control practice under consideration, the ICP must be able to infuse into health care staff an understanding of the underlying rationale. Only then can staff acceptance, accountability and subsequent ownership for this practice be realised.

At the Central Coast Area Health Service the Team Challenge Quiz (TCQ) has been found to be a unique method of stimulation. Used as an addition to standard change formalities the quiz can be used to create awareness and involve staff in the introduction of a change. Used as an educative tool to reinforce existing practices it provides an entertaining and very different way to learn.

The objective of this paper is to share the knowledge which has emerged as a result of planning, implementation, ongoing review and modification of the Team Challenge Quiz. The step-by-step description offered will provide Infection Control Practitioners with explicit directions to permit speedy initiation of the TCQ in their own organisation.

The Concept

Interesting staff in Infection Control does not have to be a chore. It can be enjoyable for both parties by simply using some creative tactics. For the introduction of a major change or an organisation-wide awareness campaign, it has been found that amidst all the necessary standard formalities, a modified version of what is commonly known as the "Sale of

the Century" quiz (as shown on television worldwide), works well. At the Central Coast Area Health Service we have taken the liberty to call our version of the game, the "Team Challenge Quiz" as it involves the concepts of co-operative (team) competition and group dynamics rather than the approach for individual gain taken by the quiz show.

The game can be used as an adjunct to standard change procedures as it incorporates principles involved in overcoming change resistance¹. TCQ can be employed to heighten awareness, aid communication (by incorporating information about the change), and act as an educative tool. Additionally, to *participate* in the TCQ is to *participate* in the *change*.

Demographics

The Central Coast Area Health Service is a 750-bed Area Health Service with approximately 3,000 staff members and is served by two Infection Control Nurses. It consists of one base hospital (550 beds), three outlying group hospitals, associated health services centres, and an aged annexe. The furthest distance between the north and south is approximately 60 kilometres.

The Central Coast Area Health Service has been undergoing extensive change for the last four years in additional beds, buildings etc, divisionalised structure, population increase (creating persistent high bed occupancy) and new technology. Thus it is often necessary when launching a major change to raise the concept above the usual "daily hum of change adaptation", and a busy workforce with its daily frustrations.

Co-operative vs individual competition

It is our experience that health professionals are highly competitive but in groups rather than as individuals. Co-operative competition removes the fear of individual failure and fosters a spirit of unity and cohesiveness within the participating group². Groups who perform well exude synergy and further promote the activity in which they are involved³. As a result it is seen that these individuals are successful and enjoying

themselves, which in turn stimulates and encourages the participation of others.

Learning Package

The basis of the Team Challenge Quiz is the Learning Package which will need to be written at the outset. Educators can make valuable allies in the undertaking of this activity. By ensuring the Learning Package is as basic as possible, it will facilitate the understanding of more varied groups of staff who will also be encouraged to become involved and share in the experience.

The Team Challenge Quiz has been used for a number of different awareness projects and the simplicity of the questions and package have been successful in attracting cleaning staff, physiotherapists, medical and pathology staff to participate. This has occurred even when it was obvious that a nursing background would have been more advantageous. Furthermore some of the forementioned teams have been extremely successful in the quiz defeating nursing teams. The quiz has led to other disciplines internalising and taking ownership of problems at the clinical workplace that have in the past been born solely by nursing staff (eg MRSA in MRSA Awareness Week).

Components of the package

The package needs to incorporate the new policies inherent in the change, together with supporting statistics and simple epidemiological information. It is important to include those aspects of information which will permit staff to rationalise for themselves the need for change.

The package should be succinct and no longer than four pages (preferably less). If the package is too long staff will not want to make the effort to read it let alone learn the information. However, as the document will be the basis from which to draw questions, it will need to be sufficiently comprehensive to permit the formulation of enough questions to provide the quiz with adequate variation and make it interesting.

Formulating questions

For health care facilities with only a small number of staff the task of constructing

questions will be relatively simple. It has been our practice at CCAHS to use thirty one (31) questions per round, with each round lasting approximately ten (10) minutes. (A short time frame makes the quiz ideal for inclusion into inservice sessions or lunch breaks).

Each question is designed to be simple and easily understood. Ambiguity is to be avoided at all costs. It is useful, before launching into major competition, to conduct a test run and present the bank of questions to a pilot group (such as educators). This will ensure there is only one meaning to each question, and only one required answer. If this is not possible, it has been our experience that questions found to result in confusion are usually identified in early rounds and thus can be removed or restructured before progressing to later rounds.

Reusing Questions

In a large organisation with many departments a question bank consisting of large numbers of questions (about one hundred) will be required. However many questions may be reused. By constantly reshuffling the order of questions and mixing questions from the question bank it is possible to keep the competition thriving through multiple rounds. Another approach is to number the questions from one onward, and record the questions used during each round. This results in the ability to reflect on the specific questions that have previously been used, and the knowledge as to the particular group to which they were addressed. Preparation of questions for successive rounds can be greatly facilitated using this method.

It is pertinent to reuse the questions that were poorly answered as it is common knowledge that repetition fosters learning. Experience has determined, that after the lapse of one or two days between participation, teams tend to forget how the questions in the previous rounds were phrased and thus

are not likely to pre-empt the answers, even when they have heard the questions before.

Creating variety in each round of questions

Once the questions are constructed, it is essential to grade them into degree of difficulty ie easy, moderate and hard. No one likes one difficult question after another, especially if they have a problem answering them. Constant incorrect answers can lead to a demoralising situation and defeat the purpose of creative infection control (CIC) activities which should be to promote enjoyment, entertainment and learning.

It is also accepted that many easy questions do not present a challenge, thus the objective is for a good mix. Suspense and intrigue can be created by constructing some questions to start with similar wording. As participants begin to become competitive these type of questions are often confused with each other. Pre-empting the question being asked then becomes more difficult. It also adds to the entertainment value, as one team will always opt to gamble for a quick guess.

Pick of the Board Questions

A repertoire of "Pick of the Board" questions will be required. Three questions with multiple clues will be required in each round. These are constructed differently from the other questions, with a series of clues leading to the answer of a specific person, thing, place etc. Each team may buzz after any clue in the series if they think they know the answer. For example,

"I am yellow"

"I am made of plastic"

"my contents must undergo high temperature incineration"

"the Australian Standard dictates I must bear significant markings on my exterior",

"my contents may cause penetrating injuries",

"I am used for sharps disposal".

Obviously the answer is a sharps bin, but up to the third clue the answer could have been a contaminated waste bag, and up to the second clue the answer could have been a yellow kidney dish or injection tray. By making clues subtle and a little ambiguous, it is possible to keep competitors guessing right up to the last clue.

To further expand on this concept the removal of the fourth clue in the example above would provide the answer of "a yellow kidney dish or injection tray!" Another variation could be achieved by retaining the first four clues, deleting the last two and the substituting of the statement "I line a contaminated waste bin" as the fifth clue, resulting in the answer: "a contaminated waste bag!" By beginning a number of questions in the same way, it is difficult for competitors to pre-empt the answers.

Buzzer set

A buzzer set will be required, preferably with the following features:

- the first buzzer pressed, cancels out the others;
- a light illuminates over the first buzzer pressed.

These features make it possible to hear and visualise the successful team immediately. Hospital electricians at the Central Coast Area Health Service fabricated our buzzer set out of the case of an old nebuliser pump and some old nurse call buzzers from the wards. The nurse call buzzers were attached to the pump case which housed the electrical components. Our meagre system has been borrowed by many other departments throughout our Area Health Service who have used the Team Challenge Quiz to their own advantage.

During the competition a member of each team is elected to hold one of the nurse call buzzers. This member of the team buzzes according to his/or her knowledge of the answer, and is also



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energetically nudged or loudly instructed by the remaining members to buzz if they think they know the answer. After the buzzer has been activated the team is given fifteen seconds to confer on the answer before a final answer is required. Thus the answer is given by mutual consensus and no member is guilty of giving the wrong answer.

Score board

A further requirement is a white board or an overhead projector and transparency to display the points as the game proceeds, and a volunteer to document and update the score. Five points for each correct answer is effective, with token points awarded if the answer is half right (2.5 points) or almost right 4 points). Five points are deducted for each wrong answer. Our game starts with a zero score – but any number of points may be awarded to commence.

Selection Board – “Pick of the Board”

A selection board for “Pick of the Board” is required. A large square of stiff cardboard (available from any newsagent) tacked to a piece of plywood or light timber, is suitable. Smaller squares of brightly coloured cardboard may then be applied to the stiff cardboard square in a hinged fashion creating a series of flaps. Any number of flaps may be used. At the CCAHS we have found four to be adequate.

Each flap should be numbered or identified in some way for easy selection. Numbers, faces, caricatures or old photos can be used, or any other icon that has some meaning in your organisation. This permits competitors to verbally identify their selections, such as “No 1” or “the kiosk” (landmark) or the “laundry sorters” (people).

Place a velcro hook under each flap. Write a prize on each of four small cards and attach a velcro dot to the back of each. Stick the dot on each card to a corresponding hook on the board. There is now a prize under each flap. With the

use of the velcro dots and hooks, prizes can be rearranged between rounds. (Note: Teams may watch the round before and may be aware of the placement of the prizes). In our version of the game, prizes of “10 bonus points”, “5 bonus points”, “Freddo frogs” and “Caramello bears” are used. (Teams often verbalise their preference for the Caramello bears rather than the ten points).

Higher bonus points can be used, but if the bonus points are too high early in the game the competitive edge is lost. Other booby prizes instead of the chocolates can be items relevant to the subject of the quiz, ie cakes of soap during hand wash week! (These were surplus stock. Our Infection Control Department does not advocate the use of cakes of soap within the CCAHS!)

Teams

Departments are requested to select teams of two or three members. Numbers depend on the size of the department. Co-operative competition whilst taking away the fear of individual failure also takes out much of the stress normally associated with competition, at least until finals are imminent!

Each team should have ‘a coach’ from their department to prepare them, and the remainder of the departmental staff should learn the package so they can prime the team by asking them the type of questions they may be faced with during the rounds. Thus everyone is learning. Departmental staff not competing are expected to attend as the cheer squad!

Prizes and recognition

Chocolate frogs and bears are major incentives and should be purchased in abundance as your budget permits! If your competition is of a large scale with heats, semi-finals and finals, you will need major prizes at the end. Engraved wall plaques have been found to be effective. These cost about \$20 each and the

winning departments display them on walls of their departments or in locations adjacent to their nursing stations or offices. The plaques are engraved, with information of the competition, eg

Name of the Organisation
Hand Washing Awareness Week 1996
Team Challenge Competition
First Place
Surgical Ward

Other selections for prizes can include chocolates, champagne, baskets with party foods eg savouries, chips, nuts, chocolates etc (ideal for a departmental celebration after the win!) A certificate should be sent to each department to acknowledge their participation in the activity. These can be designed on any computer word processing or desk top publishing programme. A certificate of good quality will be displayed with pride by participating departments in their departments.

Timer

A volunteer with a stop watch will be required as a timer to adjudicate on time allowed for collaboration on questions.

So let the games begin!

Prior to the commencement of each round the ground rules must be read to the competitors. The teams should be aware of the number of questions which will be asked. Explain that “Pick of the Board” questions will be interspersed within the questions of the round. A caution should be given that the first answer received will be taken as the only answer. Advice that the collaboration time should be used effectively and that team members should restrain themselves from giving a direct answer without consultation. Use the timer to ensure the fifteen seconds are adhered to.

Ensure the last “Pick of the Board” question is located about two or three questions from the end. This makes the finale exciting. The team with the greatest score at the end of the round, wins! If there is a tie, then one tie break question

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should be given. Complimentary bears or frogs for those that didn't win them during the game, will be appreciated at the end of the round.

Lastly, if your organisation has a staff member who has a flair for acting, is articulate and has a good sense of humour he or she should be utilised as a quiz master. This gives flair to the game and adds to the entertainment.

Involving adults in TCO

Prior to the recruiting of staff for TCO the principles of adult learning must be kept in mind. Adults like to be proactive and control the extent to which they participate. For adults, informal, comfortable, non-threatening situations foster participation^{iv}. Alternatively authoritarian, judgemental, formal classroom environments deter participation.

Marketing TQC

Marketing of the TCO should be conducted in a humorous, entertaining way, humour being a "tremendous influence tool"^v. The principles of the Elaboration Likelihood model of persuasive communication (increased individual involvement and responsibility and eye catching material) should also be used^{vi}. Under no circumstances should

staff be coerced or threatened to participate against their will. Participation should be dependent on marketing and promotion. "Practice excited thinking, until you become excited, and exciting!" (author unknown).

Benefits to the Infection Control Department

Benefits for Infection Control Staff resulting from the Team Challenge Quiz are numerous and include: opportunities for networking; opening lines of communication; informally meeting and sharing enjoyable experiences with staff of all disciplines; and gaining a better understanding of the staff in your organisation! The rewards are enormous!

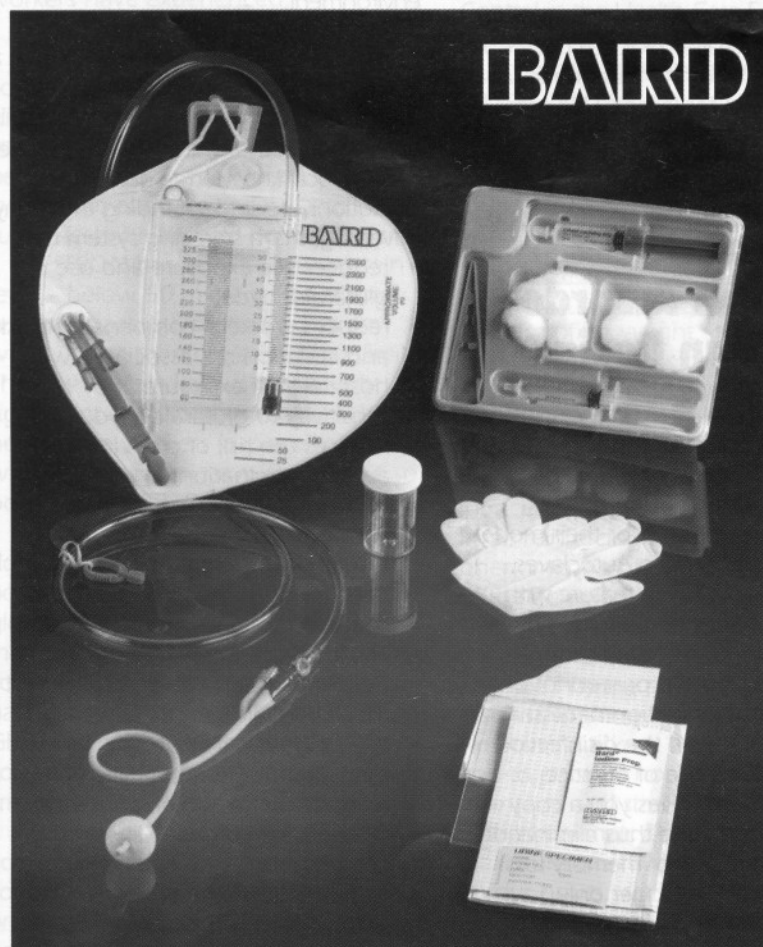
Any creative venture because of the entrepreneurial nature contains an associated element of risk. Whilst the individual orchestrating such a venture is vulnerable (due to the risk of success or failure), the competitors also share a similar experience by laying open their credibility. Thus the game is a great equaliser, and can result in empathy and understanding between participating staff and Infection Control staff. Additionally, the efforts made to bring Infection Control to your staff in

such an entertaining manner will not go unrecognised.

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