

Information and Communications Technology in Infection Control Education

Presented by Dr. Karen Lee, University of Dundee

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e-learning

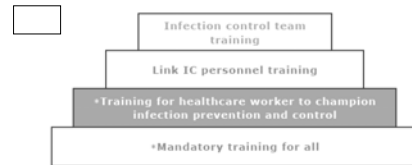
INTERACTION

- Interaction with the material
- Interaction with the teaching team
- Interaction with fellow students

Examples of ICT in e-learning

- Information
The “cleanliness champion”
e-learning web package
- Communication
The “Specialist Practitioner”
qualification/BN in Infection Control
virtual learning environment

Infection Control Education in Scotland



*These two sections are identified in the HM Action Plan Preventing Infections Acquired While Receiving Health Care: The Scottish Executive's Action Plan to Reduce the Risk to Patients, Staff and Visitors (2).

NES 2002

Example 1

- Information delivery
- Interaction with material

News release

“...we must look to create ‘champions’ on every ward who will act as an important link between the wider NHS workforce and the ICN’s”.

Scottish Executive April 2002




“I want the NHS to take advantage of that (web-based) training package and make it available to at least one nurse in every ward and clinical unit in the country - creating up to 3,500 ‘cleanliness champions’ in all.”

Scottish Executive April 2002


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HAI CC Unit 05 - Learning Outcomes 

Before we move on take time to read the **Learning Outcomes** for this Unit. These will give you clear direction on what the Unit covers and the learning we hope will result from you completing the Unit.

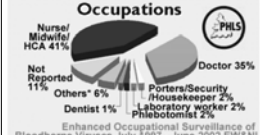


By the end of this Unit you will be able to:

1. Explain the safe handling and disposal of sharps
2. List the risks associated with the use and disposal of sharps
3. State the immediate actions to be taken in the event of a needlestick injury.

Injury Types by Occupation

However, potentially everyone working in the best housekeepers, porters, allied health professionals



Occupations

Nurse/ Midwife/ HCA	41%
Doctor	35%
Not Reported	11%
Others	6%
Porters/Security/ Housekeeper	2%
Laboratory worker	2%
Dentist	1%
Phlebotomist	2%


Enhanced Occupational Surveillance of Bloodborne Viruses July 1997 - June 2002 EWAKI

This diagram shows the different occupations of staff who sustained Needlestick Injuries from 1997-2002 in England, Wales, and Northern Ireland.

Ellen Dayton's story 


Having considered all these issues on how to ensure safe handling and disposal of sharps, unfortunately accidents still occur.

In this section of the Unit we will look at what to do if there is a sharps injury.



But before we discuss the management of sharps injuries please take time to read Ellen Dayton's story by clicking on the Web link below...

[Nurse's Life Changed in A Moment](#)





If you do not see a picture below here, click here: [HAI CC Unit 05 - Online Activity 2a - Non-Flash Version](#)

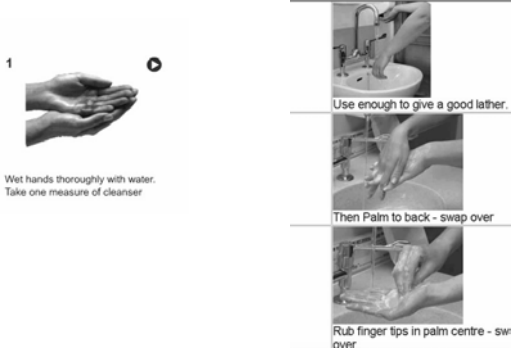
Look carefully at this photograph which demonstrates a number of examples of bad practice in handling and disposal of sharps.

The picture above has 4 zones where sharps bad practice might be occurring - first find them, and then identify what is being done wrong - note your answers in the box below.

Use your mouse to find 4 areas in the picture above where bad practice may be occurring. When you find these, your mouse will turn into a hand, and you

"I'll get this in if its the last thing I do....." © Frontier Medical




1. Wet hands thoroughly with water. Take one measure of cleanser.
2. Use enough to give a good lather.
3. Then Palm to back - swap over.
4. Rub finger tips in palm centre - swap over.

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HAI CC Unit 05 - Workplace Activity 1

NHS SCOTLAND
NHS Education for Scotland



As you will have gathered from the Unit so far, policies are crucial to follow to prevent needlestick injury and ensure safe handling and disposal of sharps.


Take a little time to seek out and become familiar with your local:

- Safe handling and disposal of sharps policy.
- What to do in the event of a needlestick injury policy.

Once you feel you understand and can follow the policies, take time to explain them to a colleague or mentor/supervisor and give reasons for taking certain actions.

HAI CC Unit 05 - Workplace Activity 2

NHS SCOTLAND
NHS Education for Scotland



Using the audit tool provided below carry out a small observation audit to determine whether safe disposal of sharps occurs in your workplace.

To get the audit tool click on this link... [PDF Available](#), and print it off using the print button in the toolbar which will appear. (Click here to see what this print button will look like... [How to print from a PDF file](#))


Take time to familiarise yourself with its content before carrying out your observations.

It is useful to let your mentor/supervisor know of your intentions.

Include the completed audit tool in your Folder of Evidence of Learning.

HAI CC Unit 05 - Reflections on your Workplace Activities

NHS SCOTLAND
NHS Education for Scotland



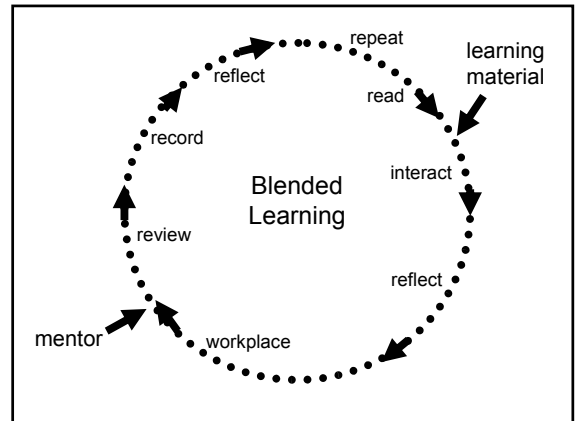
How did you get on with your three Workplace Activities?

Did your small observation audit on the safe disposal of sharps throw up anything unexpected?

How did the practices in your workplace comply with local policies which we trust you are now familiar with?

Were there any actions you felt you wanted to pursue from the outcome of your small observation audit?

How do you plan to take these forward?



Benefits

- Available to large numbers
- Accessible in workplace or home
- Learn at a time and speed to suit
- Up to date
- Interaction with the material
- Suits multiple learning styles
- Affordances of the internet

Challenges

- IT facilities
- IT support
- IT literacy
- motivation

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E-Learning materials



Example 2

- Communication
- Interaction with tutors
- Interaction with fellow students

What is a Specialist Practitioner?

- clinical expert,
- resource consultant,
- researcher,
- educator,
- change agent,
- advocate,
- clinical auditor,
- leader,
- manager,
- accountable practitioner

McGee (1998) 'Specialist practitioner in the UK' in Castledine, G. and McGee, P. Eds *Advanced and Specialist Nurse Practice* Oxford, blackwell scientific

YEAR ONE

SEMESTER ONE	SEMESTER TWO
Partnerships in Learning	Ethics, Professional and Legal Practice
Science of Infection and Infection Control	
YEAR TWO	
SEMESTER ONE	SEMESTER TWO
Research and Evidence-based Practice	Integration of Standards for Specialist Education and Practice
Practice of Infection Control: Community and Hospital	

Requirements

- To teach specialist nursing practice at a distance
- To empower nurses to use higher levels of judgement, discretion and decision making

Rationale for use of the VLE

Aim1: To facilitate constructivist and collaborative learning experiences such as PBL, situated in the practice context

Benefits:

- Learning from each others' experiences in multiple perspectives and different practice settings
- Development of metacognitive skills
- Learning in the context in which it's to be applied in real-life situations

Learning to learn, exposure to constructive criticism and alternative viewpoints, reflecting on own practice, collaboration and social negotiation

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Aim 2: to enable development of a community of practice-
 “a group of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise by interacting on an ongoing basis” Wenger 2002*

Benefits:

- Dialogue with peers and experts
- Modelling the role and language of practitioners
- Student’s identity and learning is shaped by participating within the community

*<http://www.ewenger.com/theory/index.htm>

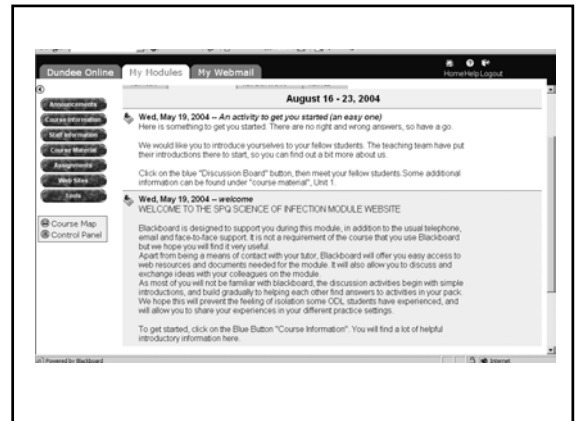
Collaborative Learning

Communication and Community come from the same root.....

Communicare = to share

Practice focussed activities and authentic tasks

- Interpretation/use of legislation/guidance
- Practice scenarios
- Identifying good and bad practice from photos
- Critiquing student seminar presentations
- Sharing past experiences
- Problem-based learning



Consider this scenario:
 A porter is working at the back of the hospital tidying waste bags for collection when he feels something stab him in the hand. He looks and sees a needle sticking out of a waste bag and his hand is bleeding slightly.
 He reports this to his supervisor and expresses concern as this is not the first time this has happened to someone in domestic services

Go to the discussion board and contribute your risk assessment of the situation, the immediate actions you would take, and your risk management recommendations.

Needlestick injuries

Scottish Executive Health Department Guidance: "sharpen your awareness"

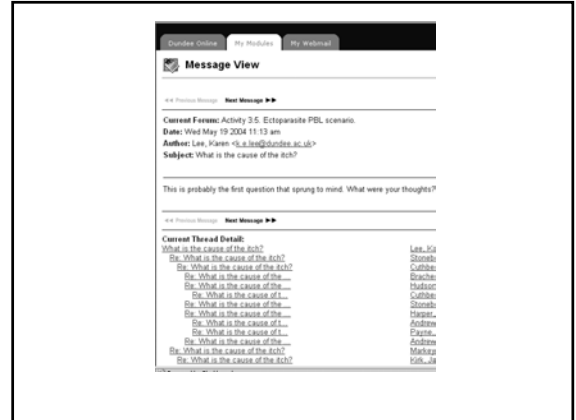


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PBL Trigger

Telephone message

Caller: Mrs H Smith (Social Worker)

Phone No: 01592 268888

Date/Time: Monday, 3pm

Message

There are three home carers in her department who are complaining of an itchy rash that started two or three days ago. One of them is the regular carer for a client who has recently started hydrocortisone treatment for an allergic skin condition. The other carers have attended the same client in the last couple of weeks or so when the regular carer has been on days off. She wonders if there is something spreading. Please contact her as soon as possible.

taken by *KL*

Hallmarks of a collaborative online classroom

- Active interaction involving both course content and personal communication
- Collaborative learning evidenced by comments directed primarily student to student rather than student to instructor
- Socially constructed meaning evidenced by agreement or questioning, with the intent to achieve agreement on issues of meaning
- Sharing of resources among students
- Expressions of support and encouragement exchanged between students, as well as a willingness to critically evaluate the work of others

Active interaction involving both course content and personal communication

Student:

I could share personal experience on this. As one of the many health care professionals who has acquired scabies [which was] misdiagnosed by my GP....for more than a month until I gave scabies to someone else in my family who was then diagnosed [correctly] by the very same GP!

Collaborative learning evidenced by comments directed primarily student to student instructor rather than student to instructor

Student (to other student in discussion board):

Hi Maria, Yes I totally agree with you, ... Having previously worked in Dermatology I feel skin conditions of any sort are commonly misdiagnosed and inappropriate treatments prescribed especially by GP's unless they have a particular interest in skin !

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Socially constructed meaning evidenced by agreement or questioning, with the intent to achieve agreement on issues of meaning

- 3 students having an interaction later on in the course

S1: I believe the chance of transmission happening is so small, it is not worth mentioning and only augments the stigma around scabies and the unenlightened rituals of using non evidenced based infection control practices like isolating patients .

S2: [reference] suggests isolation is only necessary for Crusted scabies. When first diagnosed, will we always know which one it is? As isolation is recommended for only 24hrs after treatment, isn't it better to be safe than sorry?

S3: If you mention even a suspicion of a scabies, the "victim" is almost invariably subjected to a period of involuntary isolation by carers and even relatives, due to a widespread belief that scabies is "highly infectious". This is often a knee-jerk reaction based on fear and misunderstanding. Surely it is the role of the community infection control nurse to look at the evidence... and formulate reasoned and reasonable plans ...

Sharing of resources among students

Hi everyone, there is an interesting article in the nursing times supplement about scabies. There is a good picture of a female scabies burrowing in the skin!

You might be able to access it at www.nursingtimes.net

Linda



Expressions of support and encouragement exchanged between students, as well as a willingness to critically evaluate the work of others

Carrie:

Thank you Alison for writing this up- it was a great help.....I also felt there was an educational issue for the staff involved who were contacts of the initial patient. Were they washing their hands after assisting her?this i feel is a big educational issue for community staff as well as hospital staff

Alison:

Carrie, an important point that I certainly hadn't thought about thanks.

Framework for Distance Learning



Palloff and Pratt 1999 Building Learning Communities in Cyberspace, Jossey-Bass, USA

Computer-Mediated Communication

Benefits over face to face teaching:

- Time delay allows thoughtful, considered replies- deeper learning
- More equal participation
- Permanent record

Warning: no visual or auditory cues

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Is it just for students?

“ In reality, our knowledge needs in our jobs are very unlike what we experience in classrooms. Our needs aren't clear....they arise as concerns and frustrations present themselves in our work.

In the real world, we learn most in the process of becoming part of a community and contributing to what it is doing”

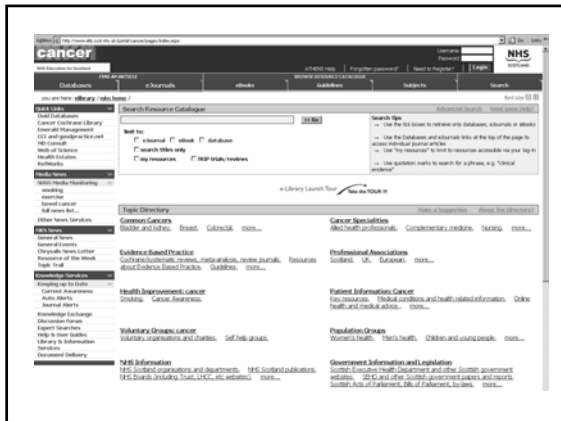
Nickols (2000) <http://home.att.net/~discon/KM/CoPs.htm>

E-library knowledge portals

Combine I, C and T and education

- Provide focused, evaluated content and interactivity
- Support online communities sharing knowledge and good practice
- Essential aim to support the application of knowledge to improve patient care

NHS Scotland e-library 2004 www.elib.scot.nhs.uk



Knowledge management

- Information isn't knowledge
- Knowledge management is capturing knowledge that is important, working with it, making it available where it is needed so it can be used to improve care
- ICT is playing an increasingly major role

British Teleclass Series 2004

- Feb. 10..... National Surveillance Strategy
- Apr. 20..... Environmental Infection Control in Healthcare
- June 10.... Clostridium difficile and Environmental Cleaning
- July 6..... Bedside Hand Hygiene Project
- Sept. 14... Information & Communications Technology in Infection Control Education
- Nov. 9..... Meningitis, Clinical Assessment

For free access to handout notes and recordings for any of these teleclasses, or to register for November 9:

contact Paul Webber paul@webbertraining.com
www.webbertraining.com

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