

GIVING A LECTURE

This chapter will answer these questions:

- o What is the importance of giving a lecture on the Rural Trauma Course?
What is the framework I can use to structure my lectures?
How do I best use the visual aids?
What other media are available?

Importance of lecturing

Lecturing is important as a teaching technique because:

- A large number of candidates can be addressed simultaneously
- Key facts from the manual can be reiterated (emphasises knowledge)
- Candidates can be asked questions (tests understanding)

Lectures make up about 30% of the teaching on a Rural Trauma course, and their main purpose is to re-emphasise the key points from the manual. A lecture should not be used to introduce new principles that are not covered in the manual, although it is quite acceptable (and indeed encouraged) for an instructor to illustrate the principles with their own personal experience, for example the instructor's own clinical slides. Each lecture does not, therefore, have to cover the subject exhaustively.

The ability to test understanding through questioning is limited in a lecture, as questioning is time consuming and will restrict the available content of the lecture. However, intermittent questioning will not only test understanding but also help to maintain the audience's concentration

Questioning technique is discussed later in this chapter.

Lecture framework

The framework for lectures on the Rural Trauma Australia course is:

- * Environment
Set
Dialogue
Closure

This is your 'ABC' of education.

In brief this means:

Environment Prepare the room
Set Tell them what you are going to tell them
Dialogue Tell them It
Closure Tell them what you have told them

Environment

The lecture theatre is your stage on which you will perform. It is your responsibility to ensure that the 'stalls' for the audience are arranged exactly how you want them.

S Seating

Seating in ranks tells the audience that this is a formal presentation.

Seating in a circle is less formal.

Have you checked to see that all members of the audience will be able to see the slide screen, overhead screen, and TV screen? You must try all the key seats.

T Temperature

If the room is too hot the audience will fall asleep. A cold room will keep the audience awake, but should not be too uncomfortable (and you may have to compete against the noise of the air conditioner).

A Aids

Have you checked the slide projector;

Image is large enough on the screen

Image is central on the screen

Image is horizontal on the screen

Image is focused on the screen

All slides in your presentation fit the screen

All slides are correctly orientated

Remote control is operational

There are spare batteries for the remote control

Does the laser pointer work?

Is the overhead projector focused on the screen, and the image visible from the back of the room?

Is the video player set up (try operating it before the lecture)?

L Lighting

Low lighting tells the audience it is a formal presentation, and little interaction will be required. A raised level of lighting is necessary to ask questions and see the audience, or to use a whiteboard/flipchart.

A low level of lighting is ideal for slides to be seen clearly - so if you want to ask questions, turn the lights on intermittently. Make sure you know where the light switch is in advance.

L Looks

The appearance of the instructor is important. An ambulance officer in uniform may appear more credible to the audience than if he/she were in jeans and a T-shirt.

S Sound

Have you checked that you can be heard at the back of the room? If not, use a microphone. Do you want a static microphone, or the ability to move around the audience with a radio microphone?

Take the opportunity to set your environment in the coffee or lunch break, or if this is not possible be clear on what changes you will want to make if you are immediately following on from another lecturer. Taped music provides a useful distraction in such a situation while you make your preparations.

Set

This is your introduction, and should take less than one minute. It is not necessary on a Rural Trauma Course to introduce yourself at the start of each lecture, as this is formally done at the beginning of the course.

The elements of the 'set' can be remembered as **MUCOR**:

M Mood and motivation

This is established by the seating and lighting, by the relative enthusiasm of the instructor, and by the perceived usefulness of the lecture.

U Usefulness

This is not a very useful lecture' is hardly motivation to listen. 'This is the most important lecture of the course will have the audience on the edge of their seats, but understandably its use is limited.

C Content

Tell them what you are going to tell them. 'In the next half an hour I am going to teach you what my aims are...." This is often indistinguishable from the 'objectives' element of the set.

O Objectives

What are the aims of the lecture? These will be written on the objectives slide, which is available for each Rural Trauma course.

R Roles

Establish the roles of the teacher and the learners. 'I shall be asking questions as we go', Please feel free to interrupt with any questions, Please save all your questions until the end.

Dialogue

The dialogue is the substance of the lecture. Although this training day provides the lecturer with a framework to structure the lecture, and the slide set imposes a certain degree of rigidity as to how this is presented, individual style is very important.

There are two important aspects of the dialogue, which the instructor must maintain:

Continuity
Feedback

Continuity is the repeated references to how the content of the lecture relates to the rest of the course (the manual; other lectures; practical stations).
Feedback is checking that the audience understands a point through questioning.

There are two main types of question:

Open
Closed

An open question would be:

'What are your priorities for resuscitation?'

A closed question would be:

'What is your first priority of resuscitation?'

or

'What comes before BREATHING in your priorities for resuscitation?'

In general all questions should be directed first at the whole audience, then an individual picked out. If the individual is selected before the question is asked, then the rest of the audience will stop thinking. A closed question is usually easier to answer, so may be used to build up the confidence of a weaker candidate.

Keeping to time can be difficult for those who do not lecture regularly. Lectures on the Rural Trauma Course are for up to 30 minutes, which includes time for questions. Each lecture has a slide set of approximately 20 'official' slides, which are considered the core content. Instructors may add or substitute their own clinical slides to this, but should try to retain all the core text slides. This promotes consistency between courses. The order of presentation is determined by the instructor.

An instructor who finishes two minutes early will please the audience and the course director. It is particularly important that the candidates' refreshment breaks are not shortened because of a tardy instructor. The course co-ordinator, or a member of the faculty can be used to warn the instructor that five minutes of time remain.

The attention span of an audience is approximately 10 minutes. Every 10 minutes, therefore, the instructor can expect the audience's concentration to wander. This is referred to as a 'microsleep'. To retain their concentration the instructor may change visual aids (move from slide to whiteboard,

overhead, or video), or introduce comedy.

Each lecture will comprise of a number of sections. For example, in head injury there will be pathophysiology and treatment. At the end of each section the instructor should make a clear transition:

"Those are the important features of pathophysiology. Let us now look at the treatment of head injury."

This is a 'microsummary'. There is also a 'microset' for the next section. The standardised lecture structure (set, dialogue, closure) is therefore used for each section within the whole lecture.

The idiosyncratic gestures or verbal tics of each instructor should be identified and suppressed. These would include:

Verbal Repeated throat clearing; repeated "ums" or "errs"; repeated phrase, eg "you know".

Hands Excessive hand gestures are distracting. Instructors who talk with their hands are encouraged to cross their hands behind their back, or put them in their pockets (but looks scruffy, and there is a temptation to play with keys or loose coins).

Movement Instructors who pace are also distracting. Sound can be intermittent when the instructor moves away from the microphone. Peripatetic instructors should try to stand behind a lectern, or confine themselves by obstacles (eg. overhead projector).

Closure
This is the summary. An opportunity is first given for questions from the audience. There is an 'any questions' slide for each lecture. The key points of the lecture are then reiterated while showing the summary text slide(s). By summarising after audience questions the instructor retains tight control and can finish with a clean break.

Examples of a 'clean break' are:

Verbal "Good, Now please move to your next skill station."
"Coffee time!" | Lunch time!

Body Break eye contact.
Language Turn back on audience.
Make gesture to usher audience out of the room.

Summary lecture structure

Remember:

Environment
Set
Dialogue
Closure

A slide set is provided for all Rural Trauma lectures, which is structured around this framework.

Visual aids

36 mm slides

Slides are the main visual aid on the Rural Trauma course. Instructors are provided with the slide set, and a carousel. When using slides for teaching there are some "do's and don'ts".

DO...

Check the projection of your slides (see 'Environment')
Restrict the text slides to those provided by the course
Add your own clinical slides to show personal experience
Use humour to combat 'microsleeps'

Use 'neutral theme' slides' as prompts☺

Leave the slide up long enough for the audience to read

A neutral theme slide would be a series of nature (animal; scenery) slides to prompt the instructor to change to the overhead projector or video. Blank slides can be used, but beware that this can throw the room into complete darkness when, for example, it is then difficult to find and operate a video recorder.

DO NOT.,.

Apologise for a slide: if it is a bad slide, don't use it
Read from slides: the audience can read for themselves
Use a crowded slide, unless you are going to explain it fully
Use an "... ist" slide (sexist; racist; misogynist); it will offend someone

Some have stated that each slide should be projected for approximately one minute. Text slides may require this length of time, or slightly longer, while the instructor talks around the subject. A pictorial slide may only require 10 seconds of projection. If the text of the slide can be comfortably read by the audience in 20-30 seconds, then this is long enough to project.

Overhead projector

This is a less impressive visual aid than a slide because:

1. It is usually monochrome
2. Pictures are often limited to those hand drawn, or produced from a photocopy
3. Changeover from one acetate sheet to another is slower than with slides
4. In a lecture setting it may suggest a lesser degree of preparedness (particularly if the acetate sheets are handwritten)

General rules when using an overhead projector are:

Check the focus BEFORE the lecture starts

Check the screen can be read from the back of the room

Print, rather than write (but preferably use typed sheets)

Avoid light colours (yellow; red)

Maximum of approximately 10 lines per sheet, and about 5 words per line

Turn the projector off when changing sheets (otherwise your hands form shadow puppets which are distracting)

Try to avoid progressively uncovering the text: it looks untidy

Whiteboard/Blackboard

A whiteboard or blackboard can be useful to aid audience interaction, and can be used to build up information. General rules are:

Write clearly

Check how big your text needs to be from the back of the room

Avoid indistinct colours (yellow/red on whiteboards; blue on blackboard)

Write in a straight line

A whiteboard can be prepared in advance and rotated to show the text when required.

Flipchart

A flipchart can be used like a whiteboard to build up information. It allows review of information which would have been erased from a whiteboard. A flipchart can also be prepared in advance.

If the flipchart is to be used to allow the audience to build up a list, the instructor can write the answer lightly in pencil in small text across the top of the page. This is invisible to the audience, and acts as a useful prompt.

General rules are:

Write clearly

Check how big your text needs to be from the back of the room

Avoid indistinct colours (yellow/red)

Write in a straight line

Video

Video can be a powerful visual aid.

Set the tape at the required start point in advance

Set the volume of the TV in advance
Check that the screen can be seen from all seats
Familiarise yourself with the 'play' and 'stop' buttons of the recorder
Ensure you have adequate lighting to see the video controls when moving from slides to video

Slides can be shown at the same time as video. If this method is used, place the TV screen close to the slide projection screen to facilitate easy simultaneous viewing.

Additional media

Sound

Music can be more powerful than words. An example of this is to show slides of major incidents to emotive classical music. Practice is required to ensure the timing of the slides coincides with the end of the music. This technique is particularly effective when used for short musical pieces (1.5 - 2.5 minutes).

Computer presentation

Increasingly there is availability to produce a presentation on computer and to deliver it using the computer, but projecting the images via a data slate or video projector. PowerPoint is a commonly used package. The principal benefit is that there is no need to carry a carousel of slides - particularly if the clinical slides have also been imported onto a floppy disc.

Remember

The only limitation to the techniques you employ in your lecture is your own imagination.☺

TEACHING A PRACTICAL SKILL

This chapter will answer these questions:

- What is the structure for teaching a practical skill station?
- How should a practical skill be demonstrated?

The Rural Trauma course teaches a series of practical skills used in the immediate management of severe trauma.

Structure

The structure of a practical skill station is the same as a lecture or table top exercise:

Environment

Set

Dialogue

Closure

Skill demonstration

Within the dialogue a specific technique is employed to teach each practical skill:

Instructor silent demonstration

Instructor talks through

Student talks instructor through

Student does

Instructor silent demonstration

The instructor performs the task in real time, without commentary and without allowing interruptions from the candidates.

Instructor talks through

The instructor repeats the task with a commentary, and allows questions from the candidates.

Student talks instructor through

A volunteer student talks the instructor through the procedure.

Student does

Each student has the opportunity to perform the task, while being observed by the instructor. The student will provide a commentary.

This process may appear lengthy, but the understanding gained from the first three steps will allow each student to perform the task rapidly.