

The e-teaching collaborative : a unique partnership assisting medical faculty to adopt innovative educational technologies and methodologies

Presented to the EAHIL Workshop, 5 June 2009, Dublin,
by Laurie Scott, Head, Research & Education Services,
Bracken Health Sciences Library



Queen's University, Kingston, Ontario, Canada

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- **Sarah Wickett**, M.L.I.S., Health Informatics Librarian (BHSL)
- **Suzanne Maranda**, M.L.S., Head, BHSL

By the end of this session participants will:

- Learn about a unique and successful collaboration between librarians, educators, and technologists
- Discover strategies to meet resource and teaching challenges
- Identify key points of a case study about a successful collaboration with a faculty member

1. Where We Are
2. Who We Are
3. Our Challenges
4. How We Operate
5. Examples of Services
6. Case Study
7. Measuring the Impact

Where We Are



Where We Are



Where We Are





Photo Credit: City of Kingston



Photo Credit: Queen's
University/Bob Weisnagel

Who We Are



Bracken Health
Sciences Library

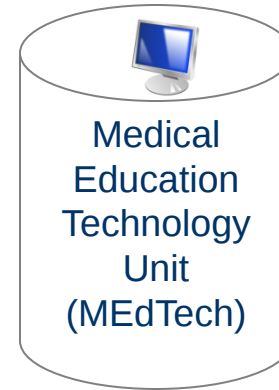


Office of Health
Sciences Education



Medical Education
Technology Unit
(MEdTech)

Resource Challenges



- How can we stop operating as silos?
- How can we avoid overlap & role confusion?
- How can we communicate & work effectively with our faculty - raise profile?
- How can we maximize the use of limited resources?

- How can we encourage faculty to try new approaches to teaching and technology?
- How can we improve faculty awareness of options for innovation?
- How can faculty find out more about colleagues' initiatives?
- How can technology address teaching challenges?

Response to Challenges



Office of Health
Sciences Education

Educational Developers

Planning, decision making, and evaluation



Bracken Health
Sciences Library

Health Informatics Librarian

*Identify and integrate relevant
digital resources*

Medical Education
Technology Unit
(MEdTech)

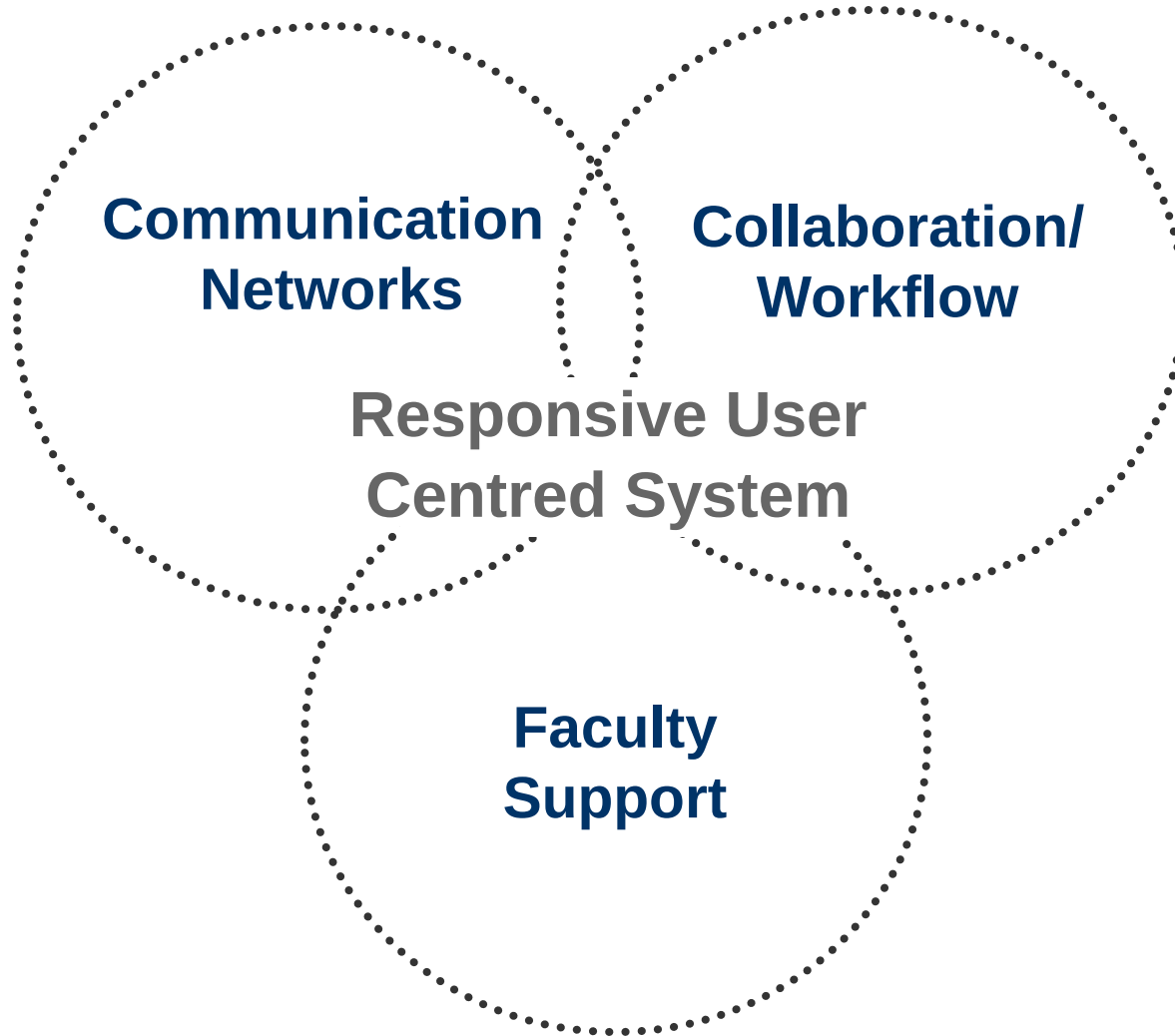
Web Developers

Effective use of technology



Educators, librarians and technologists working together
to promote & support effective teaching with technology.

How We Operate





etc
e-teaching
collaborative

Want help with your teaching?

The etc can help you use the following technologies to enhance your teaching:

- PowerPoint
- Animations
- Clickers
- Online Discussions
- Images & Videos
- Learning Modules
- Videoconferencing

Visit us online at
meds.queensu.ca/eteaching/



Ask our team for personalized assistance or browse articles on frequently asked questions

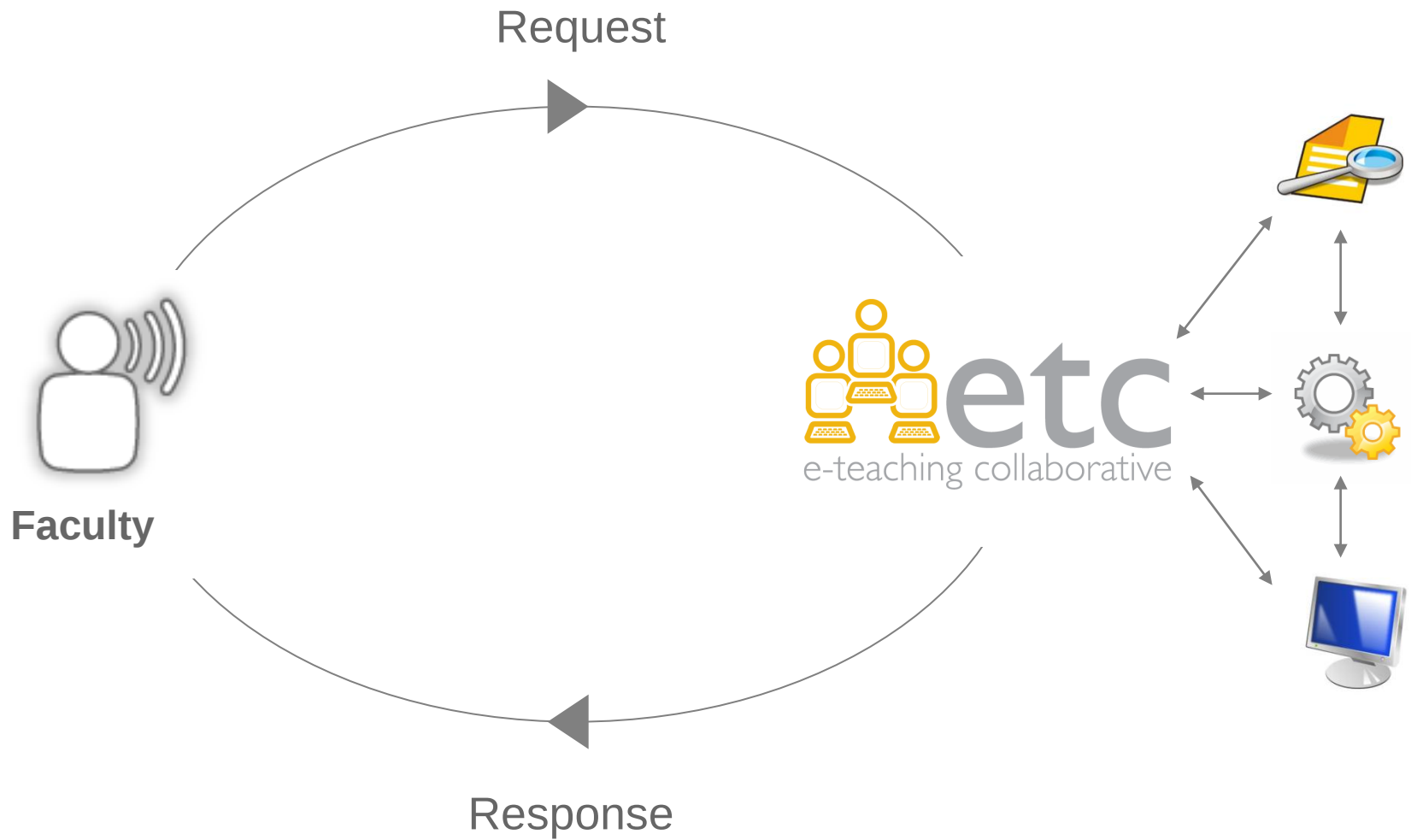


Queen's
UNIVERSITY

Faculty of Health Sciences

How do people find out about us?

- Departmental meetings
- Bookmarks
- Posters
- Word of Mouth / Referrals
- ...



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Want Help Using PowerPoint?

[click here to find out how the etc can help](#)

Welcome to the etc web site

The e-teaching collaborative is a joint venture of Bracken Health Sciences Library, The Office of Health Sciences Education, and MEdTech. Our aim is to provide one-stop access to expertise in electronic learning resources, technological tools and educational methodology.

[Read more...](#)



Success Stories



"Using the web-based database we developed allows students to post results of experiments and TAs to immediately check the results and post the data on-line for analysis." - Eric Carstens

Have Questions? We Can Help....



Interested in Using Clickers?

[Click here for step-by-step instructions and personalized support to get Clickers up and running in your classroom](#)



[Browse Archive](#)



[Ask Our Team](#)

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Web enabled, one-stop access to expertise in electronic learning resources, technological tools and educational methodology.

How do we work with each other?

- Monthly meetings
- Wiki



The RIPE Model: Four Steps to Enhancing Your Teaching with Technology



Aim - to focus and improve learning events



Action:

- Clarify learning objectives
- Develop teaching and learning strategies
- Align learning with assessment

Clarify Learning Objectives and Focus Topics

The objectives are:

1. To understand that health care delivery is dependent on community agencies (formal and lay) in collaboration with other health care providers and to recognize these relationship.
2. To conduct a project for one of these agencies. Examples of projects could include: research syntheses, needs assessment, program evaluation, the development of materials for patient education, original data analyses, or other project types.
3. To experience working in a team comprised of peers, community agency staff and clients.
4. To understand the process involved in completion of a project for a peer-review audience.
5. To prepare a formal poster in a scientific format for a peer-review.
6. This project will introduce you to the range of health related community agencies and to provide you with an opportunity to demonstrate analytical or health promotional skills by carrying out a project of value to the agency
7. Develop knowledge of others involved in the total process of health care delivery. These include professional organizations as well as many community agencies run by lay volunteers with a deep interest in and a detailed knowledge of their subject.
8. Understand the benefits of a team approach to project planning and implementation. Recognize that the physician is one of a number of people involved in the process.
9. Understand the problems related to the attainment of desired goals due to the multiple obstacles which may exist within the community and in the agency's relationship with institutionalized services
10. Develop initiative to resolve identified problems and the involvement of peers in that process
11. Develop skills to prepare a report for oral and written presentation, supplemented by material demonstration
12. This project will introduce students to the range of health-related community agencies and provide an opportunity to demonstrate analytical or health promotional skills by carrying out a project of value to the agency.
13. The students will develop knowledge of others involved in the total process of health care delivery. These include professional organizations as well as many community agencies run by lay volunteers with a deep interest in and a detailed knowledge of their subject.
14. Understand the benefits of a team approach to project planning and implementation. Recognize that the physician is one of a number of people involved in the process.

Clarifying Learning Objectives and Focusing Topics

By the end of the Community Based Project, students will be able to:

1. Describe the broad determinants of health and inquire into health issues in the community through a specific agency
2. Recognize the importance of the relationships among health care providers, community agencies and health care institutions in contributing to the determinants of health and addressing health issues
3. Participate effectively as a member of a community health team in addressing a health issue

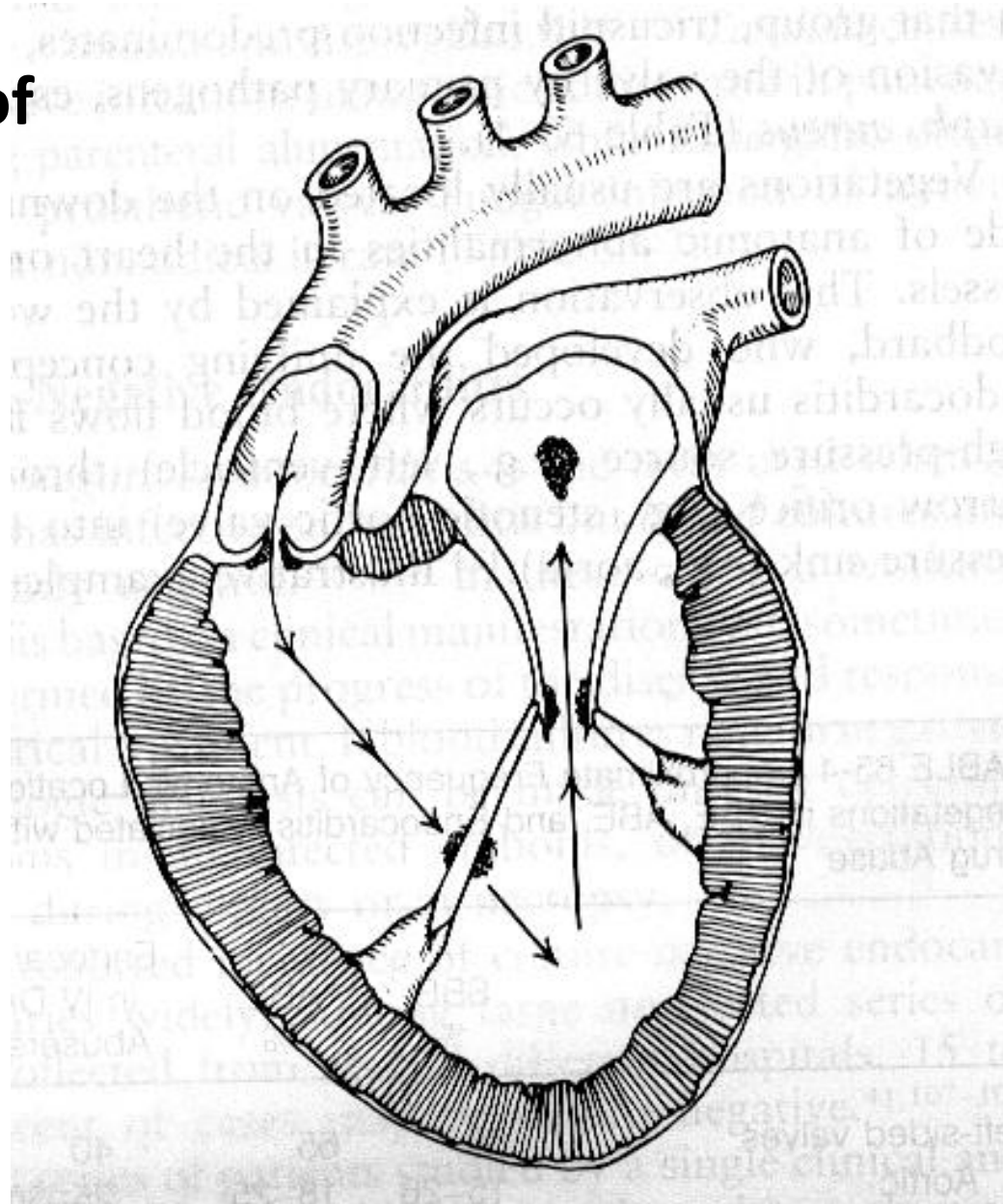
Aim - to foster active learning through enhanced visual imagery in teaching materials



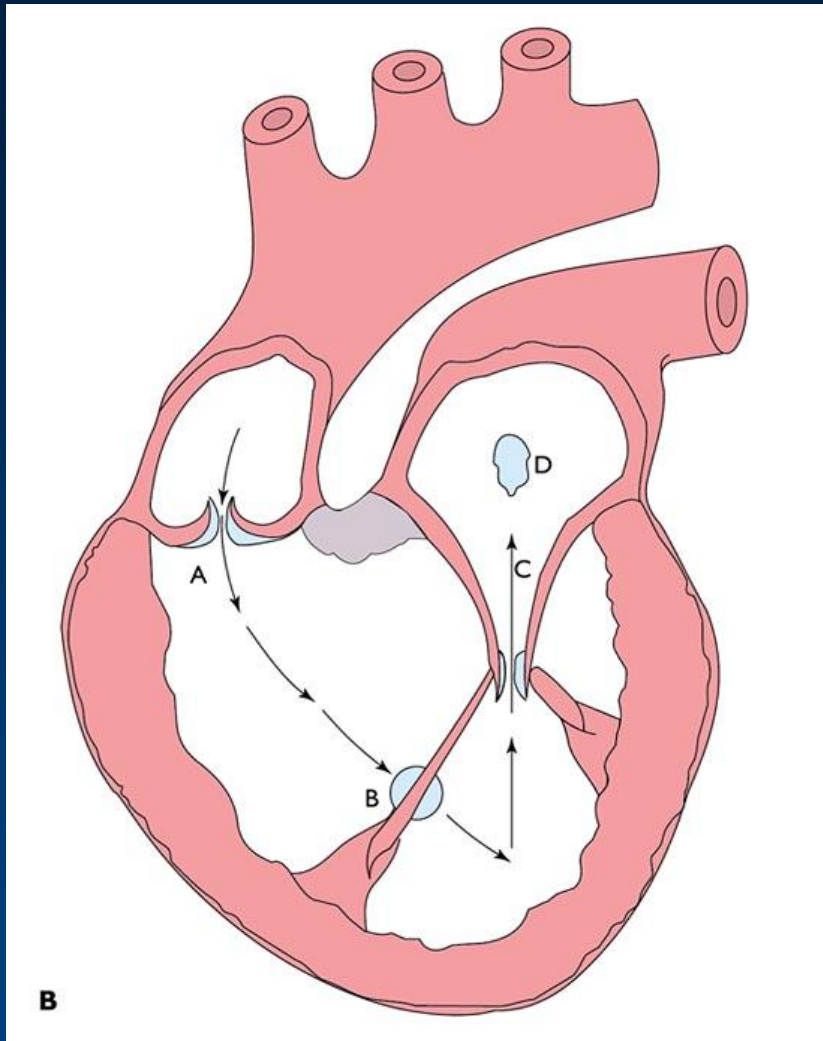
Action:

- Locate resources from online repositories
- Assist with obtaining usage rights
- Incorporate resources into presentation

Pathogenesis of Endocarditis - *the jet lesion*



Characteristic sites of formation of vegetations in the heart



Regurgitant flow and jets produce endothelial injury on the ventricular surface of aortic valve leaflets (A) or on chordae tendineae or papillary muscles (B) in aortic insufficiency.

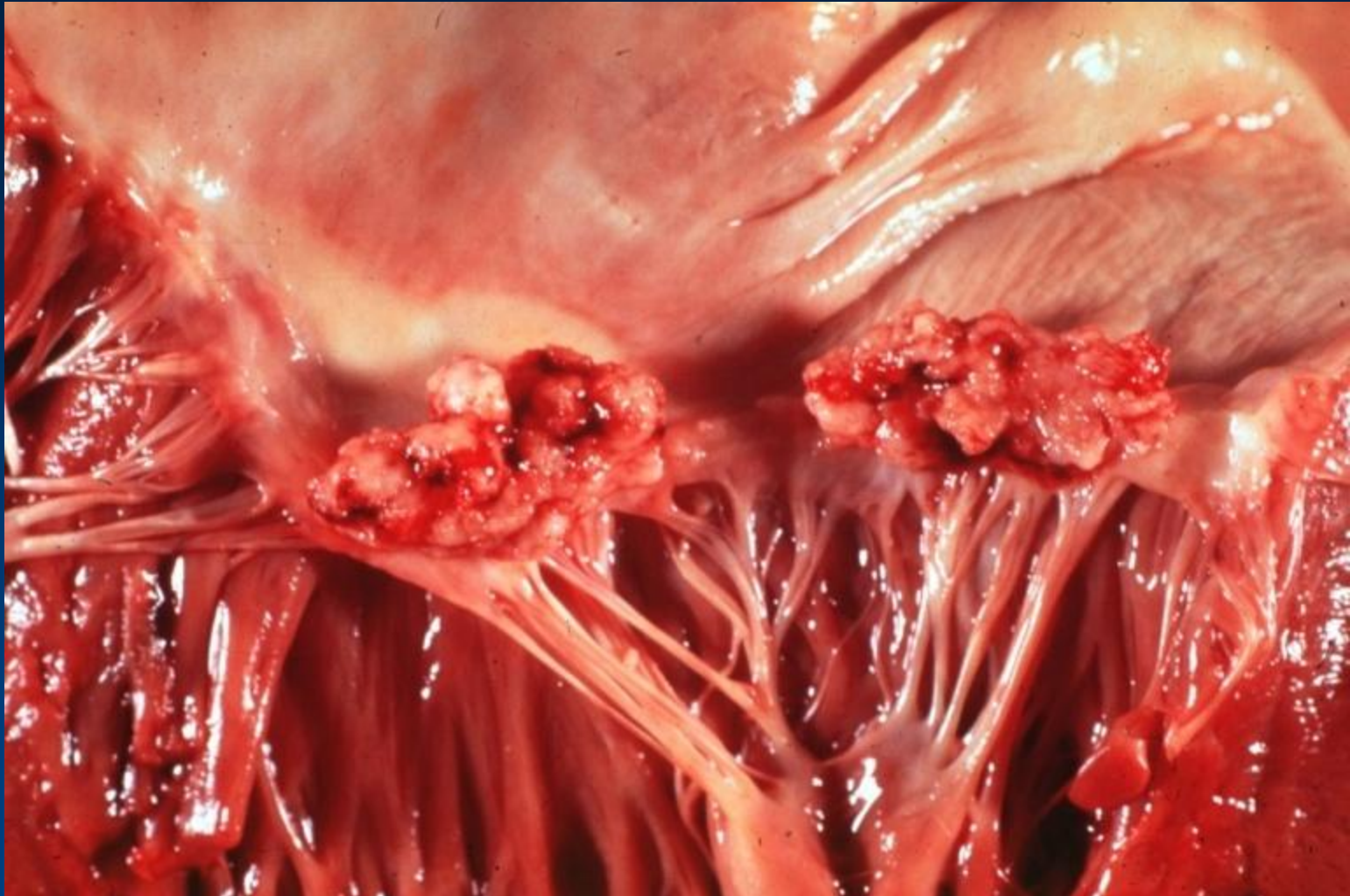
In mitral insufficiency, lesions are located on the atrial surface of the valve (C) or in the atrial wall (D).

Mitral Valve Endocarditis



HEART: Bacterial Endocarditis

Gross excellent close-up view mitral vegetations



© University of Alabama at Birmingham, Department of Pathology

<http://peir2.path.uab.edu/scripts/acdis.dll?cmd=see&fp=/dbif/PEIR/00001698.tif&fmt=jpg&q=100&h=512>

Other examples of search requests include:

- Breath sounds
- Heart sounds
- Online modules & cases
- Copyright permissions
- Videos

Example: MEdTech Web Developer

Aim - to develop an online module to allow students to prepare for an interactive, discussion-based classroom session



Action:

- Determine appropriate online tool
- Create online module using Articulate Presenter
- Provide support on how to use the technology



School of Medicine

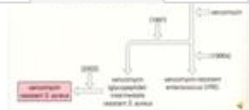


Dr. Lewis Tomalty

Bio

Email

Outline Thumbnails Notes Search



46. Evolution of Antimicrobial I



47. Quiz

Production Credits

This web-based presentation has been developed by
Regional Education and Training, School of
Medicine, Queen's University.

Please email any questions or feedback to
meded@qub.ac.uk

48. Production Credits

Quiz

Question 1 of 5:

Point Value: 1

Staphylococcus aureus is resistant to methicillin because (MRSA):

- ☐ Altered penicillin binding protein
- ☐ Chromosomally encoded Beta lactamase
- ☐ Plasmid encoded Beta lactamase
- ☐ Efflux pump
- ☐ Inability to reach its target site



Aim - to make teaching more interactive through technology

- PowerPoint review service: new digital images, new formatting, and new educational methodology
- Online case scenario with questions for pre-session student reading
- Use of clickers for case-based questions and for evaluation of teaching
- [Online quiz](#) for formative assessment post-session



Using the TSAD approach I would describe this as: numerous grouped (i.e. the arrangement) _____ (A= the primary lesion), some with _____ (B= the secondary lesion) on a sharply demarcated erythematous base (type), on the extensor surface of the upper arm, crossing over to the flexor surface of the lower arm (the distribution). (The shape of the individual lesions do not particularly help with the description or aid in the diagnosis so is omitted). (FYI: It is a contact dermatitis due to a chemical burn.)

- ☐ Vesicles, scale
- ☐ Vesicles, crust
- ☒ Bullae, scale
- ☐ Bullae, crust

No, yes they're bullae but see "a" why it's not scale.

Team Example: Curriculum Revision

***Aim** - to make teaching more integrated, active, and relevant in response to course evaluations*



Action:

- Work with neurosciences team:
 - Curriculum re-organization, link to National Objectives, syllabus, case development, use of TBL and small group learning: Educational Developer
 - Website and syllabus linked to MEdTech Central: Educational Developer and Web Developer

Team Example: Curriculum Revision

***Aim** - to make teaching more integrated, active, and relevant in response to course evaluations*

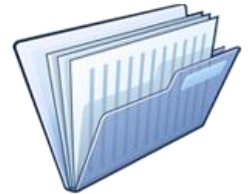


Action:

- Work with neurosciences team:
 - Digital images and videos for cases: Health Informatics Librarian
 - PowerPoint slides review: All
 - Clicker Workshop for Neurosciences faculty for interactive lectures: All

Team Example: Database

***Aim** - to help faculty integrate online learning modules into their teaching*



Action:

- Create a searchable database of locally developed online learning resources
 - Collect online resources developed locally
 - Collectively determine fields to be included
 - Research existing databases to see if we can build on existing work
 - Write to authors to ascertain copyright status
 - Work with authors to ensure peer review
 - Develop and populate the database
 - Promote database to faculty

Team Example: Manual

***Aim** - to help faculty integrate online learning modules into their teaching*



Action:

- Create a manual to assist faculty, students, and resource staff in developing online learning modules.
- Focus on:
 - Appropriate technological tools
 - Support
 - Instructional design
 - Use of multimedia
 - Protocol & accountability

Examples of Customized Services

- PowerPoint Help Service
- Clicker Support Service
- Workshops for learning teams



Concerns-Based Adoption Model (CBAM)

Stage	Concern
0 Awareness	I am not concerned about it.
1 Informational	I would like to know more.
2 Personal	I wonder how it will affect me?
3 Management	I seem to be spending all my time getting materials together.
4 Consequences	How is my use affecting learners? How can I refine it to have more impact?
5 Collaboration	How can I relate what I am doing to what others are doing?
6 Refocusing	I have some ideas about something that would work even better.

- Original model used to assess change
- We modified it to identify where our faculty were in their adoption of technology and education and also to assess where we were in the adoption of our etc process.

Case Study

- Case study is representative of our work with faculty, especially at the Consequences level
- Indicates a popular starting point for adoption--our Faculty Development Workshops
- Takes into account several tasks we accomplished together with Dr. Karen Schultz, involving Bracken, MEdTech and OHSE
- Articulated some of the processes in which we participated
- Helped to inform our RIPE model of enhancing teaching with technology



"Great suggestions. Thanks for your support and ideas throughout this. I think it's going to be a way better lecture because of Sheila and Sarah and Amy's input - much appreciated."

- Dr. Karen Schultz

On Teaching

- Expanded and diversified the number of faculty interested in teaching innovations
- Increased the number of innovative teaching initiatives
- Enhanced attendance at Faculty Development workshops

On Resources

- Increased efficiency and reduced duplication of support services
- Increased responsiveness of support services
- Emergence of a creative learning community
- Improved quality of product (learning)

On Profile

- Increased image and multimedia search requests
- Increased library partnership in workshops
- Increased awareness of teaching and technology
- Increased demand for faculty development workshops

Our Ongoing Evaluation

- Tracking our own growth and change
- Formalizing the evaluation of our services
- Documenting projects and feedback

Thank You

Questions?

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