Technology Lectures are available on BWH Anesthesia www home page
education

Educational Resources

Education Calendar

Residency Program

Residency Application

Grand Rounds Schedule
To ensure comprehensive coverage of academic anesthesia, the educational focus of the Department is on key concepts as identified by the ABA. Toward this end, learning opportunities are abundant in formal and informal settings: one-on-one tutoring sessions in operating rooms, formal lectures, clinical conferences, research conferences, journal clubs, mock oral board examinations and review of questions and answers from prior written board examinations.

On Wednesday mornings during the summer months, second year residents present their own lecture series under faculty guidance. They select clinically oriented topics (from the keyword list provided by the ABA/ASA In-Training Examination) and prepare a scholarly presentation for the entire Department. Each resident develops expertise in a specific area of the specialty. Following these lectures in the summer or the formal Lecture Series during the academic year, residents participate in a Case Conference, often focusing on the clinical implications of information presented during the preceding didactic session. Third year residents often use these conferences to hone their skills as presenters and moderators.

In the Lecture Series, Wednesday mornings from September through June, the anesthesia core curriculum is presented in a block format. Major areas in the basic sciences underlying anesthesia, the pathophysiology of disease as it relates to the practice of anesthesia and selected clinical topics are covered in organized blocks of two to eight weeks. Thus issues in anesthesia relating to pharmacology, basic sciences, pain management, all subspecialty anesthesia and pathophysiology are amply examined. Presentations by expert Department staff, as well as invited local and international experts from various medical disciplines are offered.

The Visiting Professor Program is conducted in joint sponsorship with the Department of Anesthesia and Critical Care at Beth Israel Hospital. Invited lecturers of
Lectures and Presentations

These PDF files can be either printed or read online. Acrobat Reader is required to open them. When printing pdf files be sure to check “Shrink oversized pages to paper size” in the Print Window.

Technology Block Lectures (2004)
1 - Low Fresh Gas Flow Oxygen and Agent Considerations
James H. Philip, ME(E), MD

2 - Errors in Monitoring
James H. Philip, ME(E), MD

3 - Finding Value in IT - Near Future or Hope?
David Lubarsky, MD, MBA

4 - Infusing Liquids Into Veins And Other Tissues
James H. Philip, ME(E), MD

5 - IV Access Delivery, Chapter 55
James H. Philip, ME(E), MD

6 - Clinical Conference, October 20, 2004
James H. Philip, ME(E), MD

Other Lectures and Presentations
Setting Up the CSF Pressure Monitor
Stanley Lee-Son, MD, Teresa Martuscello, MD

Clinical Inhalation Kinetics
James H. Philip, ME(E), MD

Fabius Presentation (Bradish) 33Mb
James H. Philip, ME(E), MD

Fabius Presentation (Philip Intro) 20Mb
James H. Philip, ME(E), MD
Case 2 - at EGH

Healthy 45 yo F scheduled for diagnostic pelvic laparoscopy
She had an uneventful anesthetic from same anesthesiologist at BWH 3 months ago

IV Propofol seems to have lesser effect than at BWH
Slower onset
Smaller peak effect
What could the difference be
Difference in drug effect
Difference in drug effect

Patient
  same patient

Drug composition
  Propofol source
  Propofol mixing, dilution, age

Drug delivery
Arrow (Company)  
Walrus® (Brand)  
In-Line  
Gravity-Pressure Check Valve  

One way valve  
Points to patient  
Opening Pressure  
Less than 1 cm H₂O
Drug back up in IV tubing

Check Valve (One way valve) blocks reverse flow
No need to turn stopcock during injection
Unless there is no one way valve
Stopcock

IV Bag

Patient
Swappable Connector

All injection ports
Except Stopcocks
Walrus Anesthesia IV Set

Cardinal Health - Alaris SmartSite®
Swabbaable Connector, another
Swabbable Connector, another

Connect tubing
Always Luer Lock
CLAVE™ Swabbable Connector

Connect syringe
Always Luer Lock
CLAVE™-like Connector opened
CLAVE™ Swabbable Connector
Remember: **No Needles** in the Swabbable Valves

Swab with alcohol then, **direct connect** tubing or syringe to swabbable valves.
Case 3 - at BWH

Same patient
Healthy 45 yo F scheduled for diagnostic pelvic laparoscopy
BWH this time

IV Propofol has strange effect
Slow onset
Big peak effect, late
What could the difference?
Backup into piggy-back bag

No check valve
On standard IV Sets
Check Valves are available
Check Valves are available
Walrus Gravity-Operated Check Valve
Check Valves are available
Walrus® Wide Bore Stopcock
Another Case ?
Another IV Drug failure

45 yo M for Open Cholecystectomy
Twitches came and went throughout case with Vecuronium Tx

Near the end of the case, there is no response to nerve stimulator
Electrodes are in ulnar groove on Left Arm
IV is in left arm, BP Cuff is on Right Arm
Suddenly the patient moves dramatically and the surgical exposure is lost

What’s wrong?
Occasional Vecuronium, Monitored with PNS
Occasional Vecuronium, Monitored with PNS
Manipulation of lead connections

Output is intermittent
Between Zero
And a Good Value.
Lead Connections

New problem in past few years
FDA mandated recessed female connections on all patient leads
Prevents someone from plugging leads into a wall outlet with 120 V AC
Feels like the connection is made
Plastic on plastic
Conceals lack of connection
Manipulation of lead connections

Check current delivered

Two electrodes can be connected together

To test the current delivered

Or, look at # when stimulating
Rare problems observed
Inverted Valve

Walrus®
Gravity-Pressure
Check Valve
Installed
upside down

Total Occlusion
Note valve flow is
White to Clear
Crushed Tubing

Walrus®
Tubing crushed in manufacture or shipping

Total Occlusion
Occluded channel

Walrus®
Luer Connector
Sealed shut

Total Occlusion

12/01/00
Thank you
TECHNOLOGY BLOCK
Lectures are on Anesthesia Department Web Site
Education Resources
Lectures

Harvard Medical School Anesthesia Review and Update Course
Harvard Medical Web | Harvard Anesthesia Network
Brigham and Women's Hospital | Visit GASNet
The Center for Medical Simulation

Please direct comments to Webmaster
Lectures and Presentations

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Thank you