

**Asynchronous e-Learning: Blending Web-based Technology with Morning Conference
to
Keep the Discussion Going**

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Learner audience: At any one time, there are 15-22 anesthesiology residents (CBY, CA1-CA3) assigned to the “main OR” (MOR) rotations. These residents attend a 30-minute, case-based, Life-Long Learning Conference (LLLC) three mornings/week.

Needs Assessment: Several MOR residents (typically six) cannot attend conference due to vacation, and on-call or evening shift assignments. Additionally, over half of the program’s 46 residents are assigned to non-MOR subspecialty rotations. Those absent from LLLC miss out on this ongoing group learning activity, experiencing gaps in the threads of learning. Also, because questions, concepts, and learning points prompted by case discussion are often numerous and complex, the half-hour time limit often impedes complete resolution, and careful consideration of relevant studies and other sources mandates additional outside time.

Curriculum: Two web-based technologies were implemented to help keep learning participants connected with ongoing LLLC sessions. The 1st, a web site repository of daily LLLC proceedings (including links to relevant published evidence, case related images, web media) was established in late 2005, and remains readily accessible by residents, students, & faculty. Updates are announced via e-mail directing residents and faculty to the LLLC home page. A 2nd element was piloted in fall 2006 – a web log/discussion site (password protected, separate sites for residents & faculty) designed to facilitate ongoing asynchronous e-discussion of selected LLLC topics & questions, at any time and regardless of assignment status or ability to attend morning conference.

Impact: Residents, including residents unable to attend LLLC, participated in asynchronous e-discussion as evidenced by comments posted (Table) and page view statistics (Figure). Pages were viewed throughout the day, as well as during overnight & weekend on-call hours. Resident comments were consistently thoughtful and substantive (data not shown). Some faculty participated initially, but comment posting was limited and tapered off quickly (Table & Figure). Some topics prompted much more e-discussion than others (Table). Adding a blog to the preexisting web-based LLLC proceedings repository availed all residents the opportunity to continue asynchronous group e-learning beyond the bounds of live morning conferences. A blend of web-based tools & traditional group learning, such as this, may better match current evolving learning styles & strategies.

Table: Topics posted on 2 separate LLLC blog sites, with number of comments posted by residents & faculty.

Date	Topic	Resident Comments	Faculty Comments
5-Oct	Diabetes Expertise -- Turina et al. 2006	10	NA
18-Oct	What's the big deal with Pulmonary HTN?	1	NA
19-Oct	Diabetes Expertise -- Our Practice	1	NA
25-Oct	Periop Vision Loss	8	1
28-Oct	ACEIs & ARBs	0	8
30-Oct	Healthcare Systems & Complications	18	0
1-Nov	ACEIs & ARBs: Let's get to the bottom of this...	5	NA
3-Nov	LMA Nation...	5	4
6-Nov	LMA Nation II ...	8	6
9-Nov	OMF Surgery & Stormy Emergence...	10	8
10-Nov	"Mental Status Changes" in PACU	1	0
11-Nov	Safety: How are we performing?	0	0
12-Nov	Fact or Myth: Pulmonary effects of Pneumoperitoneum	3	0
22-Nov	Hypotension & "Patient's Awake", again & again...	14	0
27-Nov	Deep Extubation -- Stormy, cont'd	0	NA
29-Nov	SSEPs meet "Patient's Awake"	0	NA
13-Dec	PACU Near Miss...	4	0
14-Dec	Posterior Fossa Cran'y -- the classic case...	2	0
28-Dec	Open Globe & Full Stomach ... a classic	5	NA

Figure: Record of page views for separate resident & faculty LLLC blogs during Nov 2006. Because complete data for daily page views were unavailable, data are presented as number of page views over prior 7 days – positive slope indicates increasing daily viewing, while negative slope indicates declining viewing.

