West Meets East
Can American Methods Help to Teach Medicine in Japan?
One American's Experience and Thoughts

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Topics

- Why do you care about teaching clinical medicine at the University of Tokyo?
- American Culture vs Japanese Culture
- Adult Learning Concepts
- What do we want our students and residents to learn?

Topics

- Dr Lubin's Medicine Show
  - What I did at Todai
  - How did I do?
- What could be done in Japan?

Why do you care?

- What is the best way to train young people to be doctors?
- Why do we care?
- Because these young men and women are going to be the doctors who take care of us and our families!!
- We want them to be the best doctors that they can be!!

Why do you care?

- In my time at University of Tokyo:
- It is clear that it is a wonderful and incredibly well respected institution
- The University is very interested in being a place that produces the best research in Japan
- And perhaps the world
- That is a good thing!

Why do you care?

- However:
- It is also clear to me that many of the students at Todai are going to be practicing physicians too!
- And there is no reason why a school as good as University of Tokyo cannot do great research
- AND
- Produce the best clinical doctors in Japan too

Disclaimer

- There is no right or wrong in this discussion
- There is no superiority in this discussion
- This is a statement of differences
- Certainly shows differences in methods of teaching
- May show ways to get the best out of both worlds (I hope!!)

American Culture

- Individual is primary (student; resident; faculty)
- Group is secondary
- Action oriented
- Deference to senior people but not always
- Ability to say NO
- Ability to say YES
- Better at risk/change (not great)

Japanese Culture

- Individual is secondary
- Group is primary
- Thought oriented
- Primary deference to senior people
- Never say NO
- Sometimes say YES
- Risk/change averse

My experience at Todai

- There have been some good changes in medical training over the past decade
- Problem based learning has been instituted which is a good thing
- Standardized patients have been used to help teach students clinical medicine which is also a good thing
- OSCEs (observed standardized clinical exercises) have been used to teach as well
- There is now a two year rotating internship for everyone with more clinical experience

My experience at Todai

- There are some great opportunities at Todai that could be used to improve teaching even more!!
- There are a lot of patients available for teaching both in the hospital and in the clinics
- There are faculty who are very interested in teaching and are willing to teach

Child vs Adult Learning

- **DIFFERENCES BETWEEN CHILDREN AND ADULTS AS LEARNERS:**

CHILDREN	ADULTS
Rely on others to decide what is important to be learned.	Decide for themselves what is important to be learned.
Accept the important being presented at face value.	Need to validate information based on their beliefs and experience.
Expect what they are learning to useful in their long-term future.	Expect what they are learning to be immediately useful.
Have little or no experience upon which to draw-are relatively clean slates.	Have more experience upon which to draw-may have fixed viewpoints.
Little ability to serve as a knowledgeable resource to teacher or fellow classmates.	Significant ability to serve as a knowledgeable resource to trainer and fellow learners.

How Good is Our Teaching?

- Over a 3 day period of time,the rate of retention when adults learn, using the following methods:

- Adults retain __20%_ of what they hear
- Adults retain __30%_ of what they see
- Adults retain __50%_ of what they see and hear
- Adults retain __90% of what they say as they do

Adult Learning

- The idea of doing while learning is a widely recommended approach to teaching adults
- Discovery (self) learning is most useful for higher-order thinking and problem-solving.
- Instructors should regularly engage learners curiosity
- Information is most meaningful when learners come to understanding on their own
- When learners are given regular opportunities to discover knowledge for themselves, they learn how to learn

Adult Learning

- Ideally, an instructor uses different types of communication within a classroom:
- **Set a feeling or tone for the lesson**. Instructors should try to establish a friendly, open atmosphere that shows the participants that they will help them learn.

Adult Learning

- **Set an appropriate level of concern**. The level of tension must be adjusted to meet the level of importance of the goal. If the material has a high level of importance, a higher level of tension/stress should be established in the class. However, people learn best under low to moderate stress; if the stress is too high, it becomes a barrier to learning.

Adult Learning

- **Set an appropriate level of difficulty**. The degree of difficulty should be set high enough to challenge participants but not so high that they become frustrated by information overload. The instruction should predict and reward participation, culminating in success.

- **Adults have something real to lose in a classroom situation**. Self-esteem and ego are on the line when they are asked to risk trying a new behavior in front of others. Bad experiences in traditional education and feelings about authority affect in-class experience.

we want our students to learn?

- I listed a number of things in my previous talk that I think students and residents should learn:

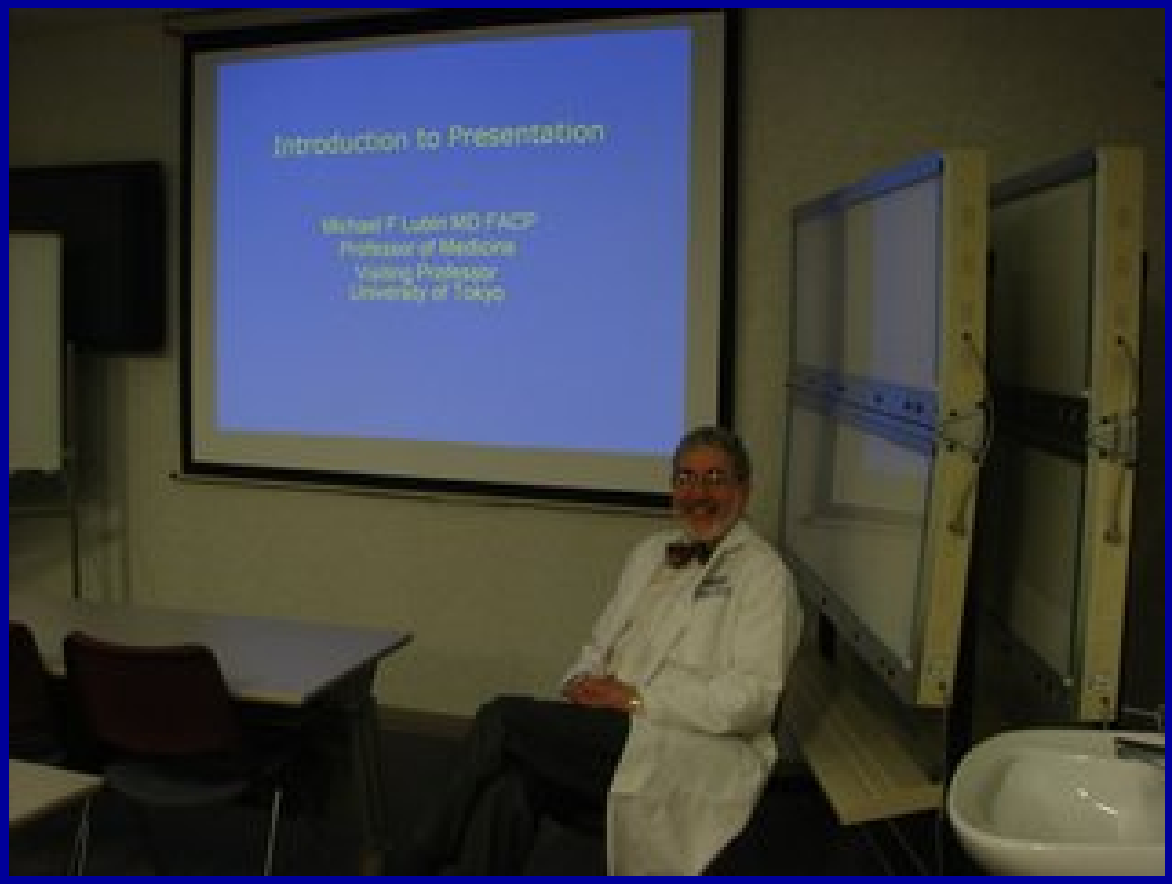
- How to present a patient
- How to take a good history
- How to do a good physical examination
- How to do a good assessment
- How to make a plan of diagnosis and treatment
- How to learn on their own

ve I tried to teach these things?

- **How to Present a Patient**
- I gave a straightforward lecture on this topic
- This topic is fairly easy to lecture on
- There is a clear purpose
- There is a clear set of ideas to teach

ve I tried to teach these things?

- **How to Present a Patient**



ve I tried to teach these things?

- **How to Present a Patient**
- Well how did this work?
- There were many presentations done during my stay here by both students and residents
- Every one of them was very good!!
- I was deeply impressed
- (however) I think that Dr Hara spent a lot of time with the residents and students working on these presentations
- But THEY WERE STILL VERY GOOD
- And clearly they were learning!!!

ve I tried to teach these things?

- **How to take a good history**
- I did this during the case presentations
- I spent part of my time during case presentations to ask questions about the history that were not mentioned in the presentations
- I explained why I wanted to know these things
- I explained during the conference that the information from history allowed me to help tell the difference between a number of diagnostic possibilities

ve I tried to teach these things?

- **How to take a good history**
- Did I succeed?
- Hard to tell
- While the presentations did a pretty good job with history there were frequent areas that were not as detailed as they should have been
- There was no way for me to know if they can take a history from a real patient!!

ve I tried to teach these things?

- **How to take a good history**

ve I tried to teach these things?

- **How to do a good physical examination**
- Oh my!!!
- I couldn’t do that during the work that I did here at Todai
- However:
- I was able to explain -and sometimes show (on myself) - how to do some aspects of the physical examination during my lectures and case conferences

ve I tried to teach these things?

- **How to do a good physical examination**
- Examples: cardiac exam
- where to listen, what to listen for, what the sounds were like
- pulmonary exam
- how to determine lung expansion, how to look for accessory muscle use, and what percussion and fremitus were used for

ve I tried to teach these things?

- **How to do a good physical examination**
- How did it work?
- I am not sure- there was no way to test their examination abilities
- But during later conferences it appeared that the residents remembered what I had said about these things
- I was encouraged!!
- But I don't know if they can do a competent physical examination

ve I tried to teach these things?

- **How to do a good assessment**
- I did this during case conferences and lectures
- How?
- After presentation of the history, physical exam and laboratory information
- I would ask students and residents to tell me what they thought might be the diagnosis
- I would not stop at one diagnosis
- I would ask a number of the residents and students what else might be on the list and why!

ment (In a case of heart failure)

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- The patient has symptoms that appear to be heart failure because of dyspnea on exertion. The etiology of his heart failure is unknown but there are several possibilities

ment (In a case of heart failure)

- Hypertensive cardiomyopathy

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- Hypertensive cardiomyopathy
- Ethanol (alcoholic) cardiomyopathy

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- Mitral valve disease

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- Hypertensive cardiomyopathy
- Ethanol (alcoholic) cardiomyopathy
- Mitral valve disease
- Coronary artery disease
- Idiopathic cardiomyopathy
- Others

ve I tried to teach these things?

- **How to do a good assessment**
- How did this work?
- Hmmm
- It was ok at best
- What were the problems?

ve I tried to teach these things?

- **How to do a good assessment**
- There are problems here (Japanese culture)
- Students and residents are not used to being "singled out" to answer questions by themselves
- They were resistant to answering if they were not sure
- As we went along, however, they became more used to the situation and some, at least, were willing to contribute guesses
- I think this was (to some degree) successful

ve I tried to teach these things?

- **How to make a plan for diagnosis and treatment**
- I did this during case conferences and lectures
- How?
- After getting a good differential diagnosis
- I would ask students and residents to tell me how they would approach a plan of diagnosis and then treatment

ve I tried to teach these things?

- **How to make a plan for diagnosis and treatment**
- There are problems here again (Japanese culture)
- Students and residents are not used to being "singled out" to answer questions by themselves
- They were resistant to answering if they were not sure
- As we went along, however, they became more used to the situation and some, at least, were willing to contribute guesses
- I did not feel that this was very successful
- HOWEVER- I did not spend a lot of time on this

ve I tried to teach these things?

- **How to learn on their own**

- On a number of occasi ons, I asked that a resident and/or student l ook up information on a subj ect and teach the group about what they found

ve I tried to teach these things?

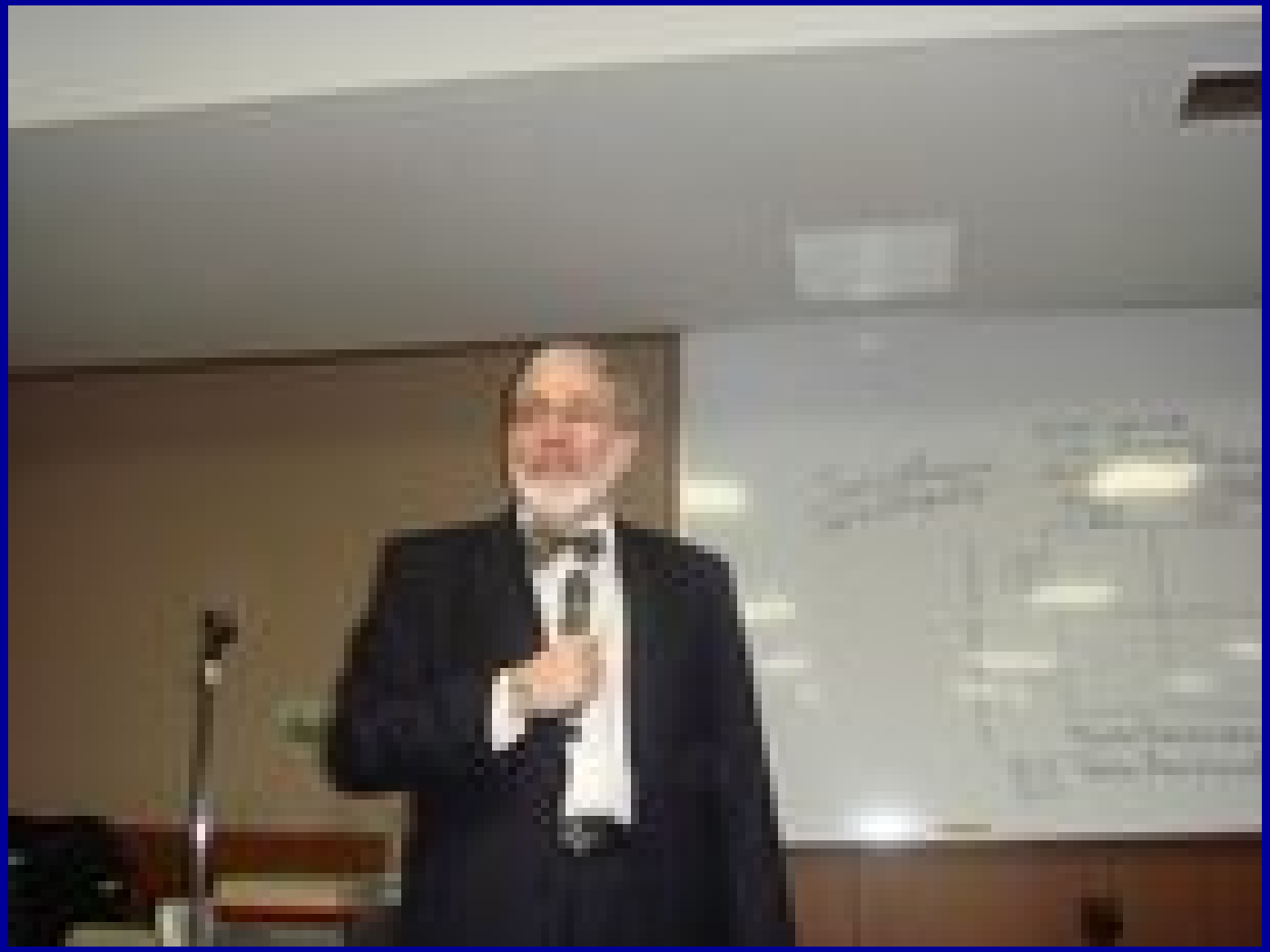
- **How to learn on their own**
- There are problems here
- I think that on only one occasion, one student actually did some searching and brought me some information
- Not one other person ever brought any information back to the group
- Why???
  I surely don't know
- **anybody got any ideas??**

Presentation/Lecture

- POSITIVES:
- Keeps group together and on the same point
- Time control is easier.
- Useful for large group size (20 or more).

- NEGATIVES:
- Can be dull if used too long without learner participation
- Difficult to gauge if people are learning.
- Real learning is limited.

Presenter Presentation/Lecture

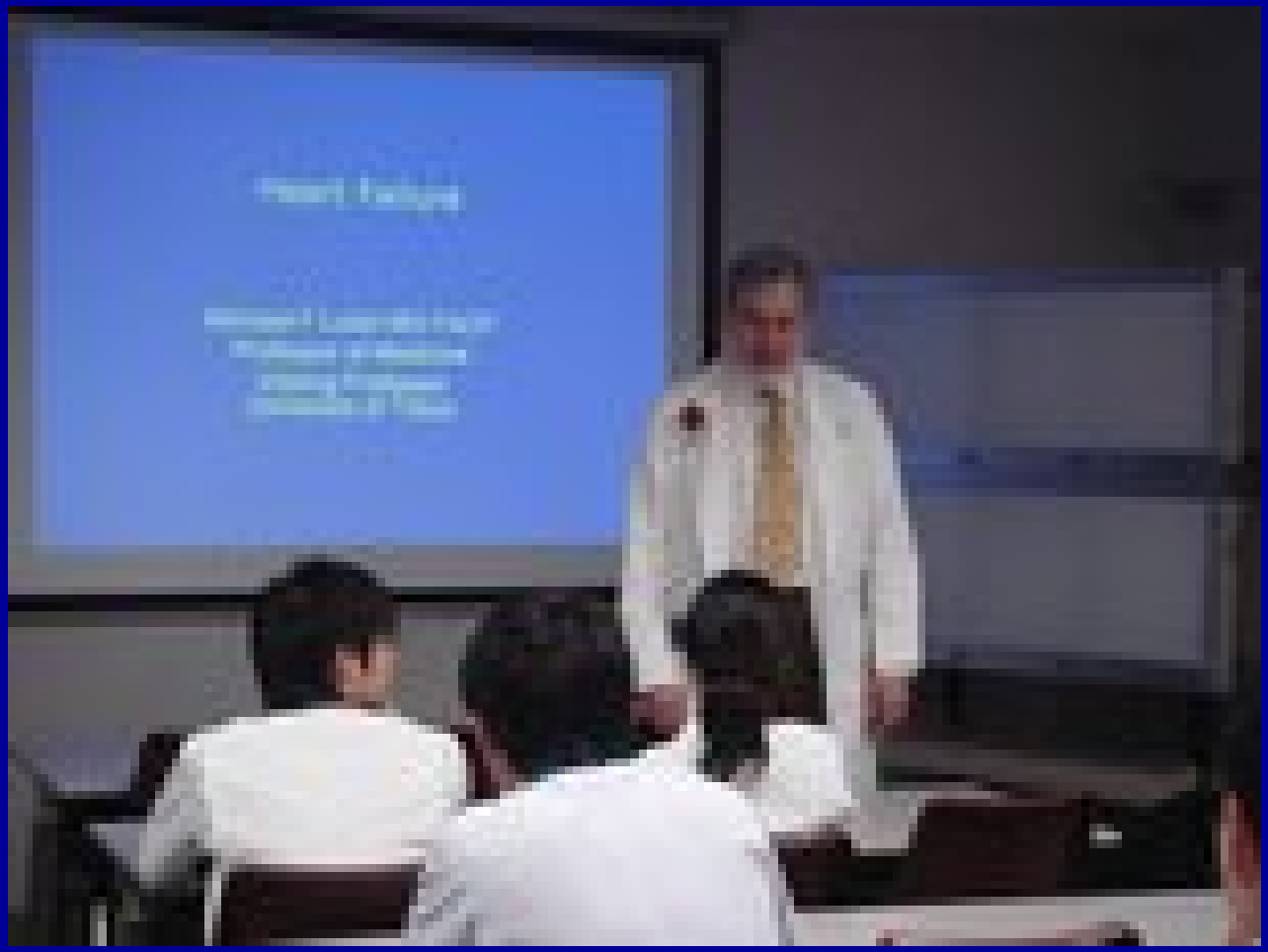


Facilitated Discussion

- POSITIVES:
- Keep learners interested and involved.
- Learner resources can be discovered and shared.
- Knowledge can be observed and learning noted

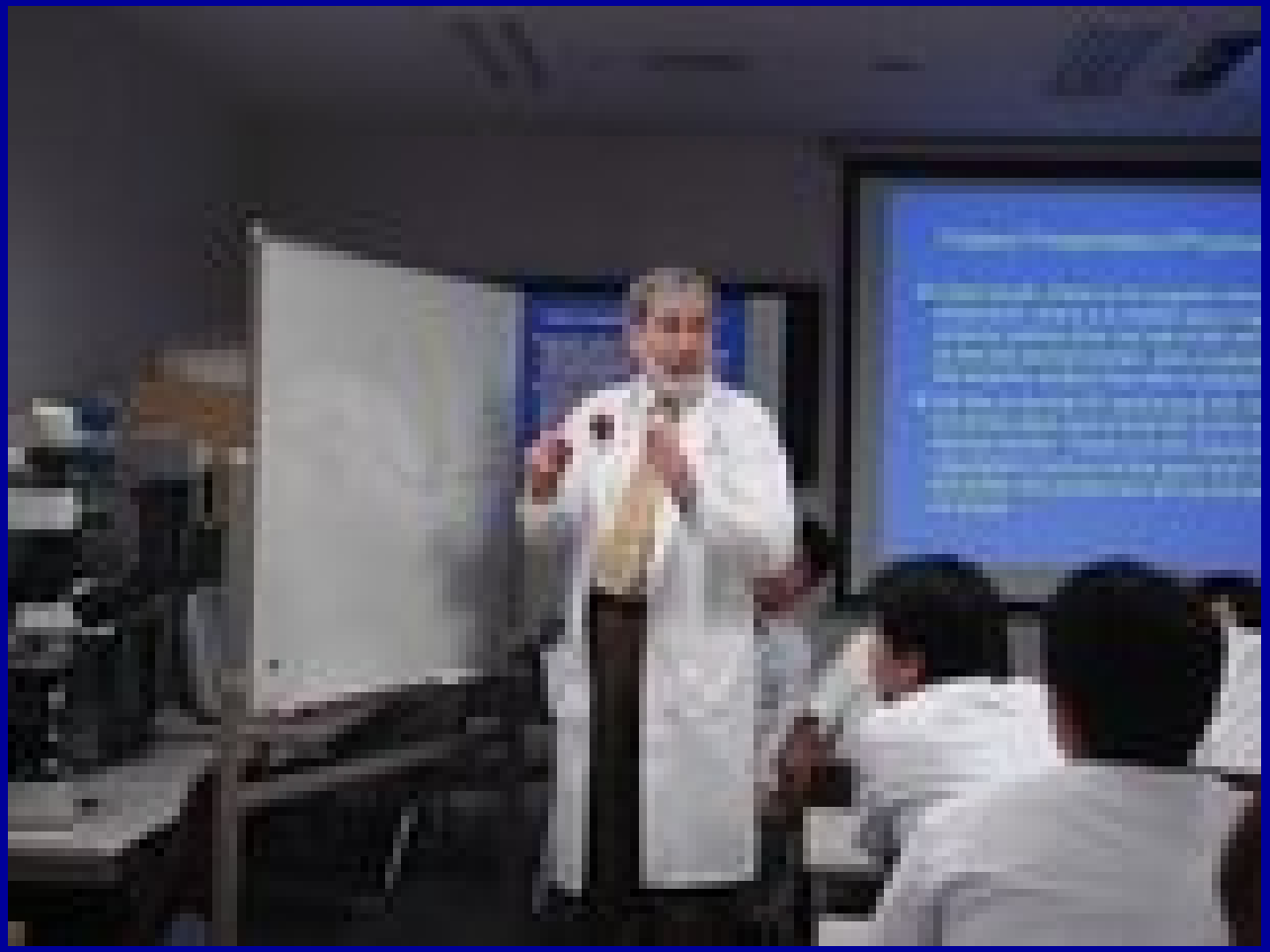
- NEGATIVES:
- Learning points can be confusing or lost.
- A few learners may dominate the discussion.
- Time control is more difficult.

acilitated Discussion



Facilitated Discussion

Facilitated Discussion



Case Study

- POSITIVES:
- Requires active learner involvement
- Can simulate performance required after training.
- Learning can be observed.

- NEGATIVES:
- Information must be precise and kept up-to-date.
- Needs sufficient class time for learners to complete the case
- Learners can become too interested in the exact case at hand

Case Study

Case Study

What I have learned

- Talking to Students:
- **Please correct me if some of this is wrong!** Despite my "perfect" Japanese and the students' "perfect" English, there may have been some miscommunication!!!
- Learning physical diagnosis (before clinical rotations) is done with standardized patients for history taking, with models and observation for physical examination

What I have learned

- Talking to Students:

- On clinical rotations, it is usual that the student does one history and physical examination during the entire rotation
- They follow only one (or two) patients on almost all the rotations
- They insert no IV lines on real patients
- They do no procedures on real patients

What I have learned

- Talking to Residents:
- On clinical rotations, they see more patients but not a large number
- They are not taking care of patients over night
- Most patients are not acutely ill
- Particularly at University Hospital, they do not have much opportunity to make clinical decisions
- Supervision is fast and brief
- Teaching is dependent on the resident asking attendings to teach them and the time the attendings have teach

What I have learned

- Talking to Attendings:
- There are not many of them
- On the ward service, they make very quick rounds in the morning to see what is happening with the patients
- There is no real time for bedside teaching
- After morning rounds, they may go to clinic and see many patients until late in the afternoon
- Then some? return to the ward in the evening for another quick review of the patients
- And then, off to the lab to do research?? (until late at night!!!)

What we do in the USA

- Students:
- They learn to do history and physical exam (mostly) on real patients during the M2 year
- In groups of 2 students, one does a history and the other does a physical exam
- An attending goes with each group of two to the bedside to teach h and p
- They do about 12 patients during the M2 year
- They are tested on Standardized patients about twice a year

What we do in the USA

- Students:
- As M3s, **just on the medicine rotation** (12 weeks), each student does AT LEAST 18 complete histories and physical examinations on real patients
- As M4s, **just on the medicine rotation**, the students do at least 12 complete histories and physical examinations in one month
- They also take complete care of their patients, including all procedures

What we do in the USA

- Residents:

- First year residents are responsible for all the histories and physical examinations on their patients
- They do all the procedures on all their patients
- First year residents usually take care of about 25 new patients each month
- Second year residents supervise the care of two first year residents (about 50 new patients per month)

What we do in the USA

- Attendings:

- Attendings are responsible for about 50 inpatients per month
- They must supervise the second (or third) year resident, the two first year residents and the students on the team
- They spend around 50% of their time that month (average about 4-5 hours a day and six days a week!) supervising the care of patients and teaching the residents and students

So what could be done at Todai ?

- Remember the pluses at Todai
- Very bright, interested students and residents
- Attendings who are very interested in teaching students and residents (not enough of them)
- Lots of patients who could help the students and residents to become great doctors
- The University of Tokyo wants to be (and probably is) the best Medical School in Japan
- While this is true: it can be even better!!

So what could be done at Todai ?

- I believe that there are a number of things that can be done to improve the clinical teaching of students and resident
- Some of these things are pretty hard to do in Japan but I think would be worth the time and effort
- They will require a lot of hard work and a lot of political skill to accomplish
- And everyone from the top on down will have to believe that good things will result!!

So what could be done at Todai ?

- Japanese society will have to be convinced that excellent clinical training of medical students and residents in Japan is in its best interest and will good for people in the long run and will not be dangerous in the short run
- Patients would have to allow students and residents to be able to do workups on them so that they can learn to do these workups on real patients!!!
- This is a big change and will probably be hard to do (but not impossible because it is so important)

So what could be done at Todai ?

- The University of Tokyo Medical School is the acknowledged leader in Japan
- What it does is an example for other medical schools
- What it does would be seen by Japanese Society as the right thing to do
- I suspect that if the University had the will to do this, that everyone else would willingly follow!!

So what could be done at Todai ?

- Funding for clinical teachers should be found
- Time = Money
- If teachers are paid to teach, they will not have to see mountains of patients to pay their salaries
- I don't know where money for teaching might come from in Japan
- But… there should be money found in medical school budgets for teaching
- There should also be societal (tax?) funds found to help support clinical teaching since doctors are being trained to care for everyone in the society!!

So what could be done at Todai ?

- Teaching needs to be an honored and respected profession in medical schools
- There is too much competition for teachers to also be great researchers
- Reseachers cannot keep up with clinical medicine nor have the time to be role models for students and residents
- It is important not only to have enough teachers, but to have them happy enough to stay until they are superb teachers, not just young people who will do the job!!

Adult Learning

- ADULT LEARNING PRINCIPLES:
- 1. FOCUS on real world problems.
- 2. EMPHASIZE how the learning can be applied.
- 3. RELATE the learning to the learners' goals.
- 4. RELATE the materials to the learners past experiences.
- 5. ALLOW debate and challenge of ideas.
- 6. LISTEN to and respect the opinions of learners
- 7. ENCOURAGE learners to be resources to you and others
- 8. TREAT learners like adults.
- 9. *****GIVE learners control*****

Adult Learning

- ADULT LEARNING PRINCIPLES:
- 1. FOCUS on real world problems.
- Teaching can and should be done in a real world setting
- Where the students and residents are taught clinical medicine on real patients with real problems
- This is actually easier in Japan than in the US because the patients in hospital in Japan are much less sick than in America and therefore would be at less risk with students and residents

Adult Learning

- ADULT LEARNING PRINCIPLES:
- 2. EMPHASIZE how the learning can be applied.
- This is much easier when students and residents are working with real patients - it is obvious that what they learn is what they need to know
- There is a lot of incentive for them to apply the most recent information to the care of their patients
- Faculty can make sure that learners are finding new and important information

Adult Learning

- ADULT LEARNING PRINCIPLES:
- 3. RELATE the learning to the learners' goals.
- This is easy to do when students and residents are caring for real patients in real settings
- Faculty can reinforce this as well since they would be around a lot more

Adult Learning

- ADULT LEARNING PRINCIPLES:
- 4. RELATE the materials to the learners past experiences.
- Again a really easy thing to do when students and residents take care of patients in a real world setting
- I can remember every one of my important errors in judgment and care and know how to avoid the same mistakes!!

Adult Learning

- ADULT LEARNING PRINCIPLES:
- 5. ALLOW debate and challenge of ideas.
- This would be a great change in Japanese culture
- But it might be a productive one
- I cannot tell you the number of times that I have learned things from residents and students over the years!! (of course I am correct way more often than they are, but not always)
- And everyone should be encouraged to think for him/her self and challenge the “standard” ideas
- That is how progress is made!

Adult Learning

- ADULT LEARNING PRINCIPLES:
- 6. LISTEN to and respect the opinions of learners
- This is the same as the last one except:
- It really encourages students and residents to think for themselves when they know you will be receptive and respectful of their ideas!

Adult Learning

- ADULT LEARNING PRINCIPLES:
- 7. ENCOURAGE learners to be resources to you and others
- This is easier and perhaps more important
- Allowing learners to be teachers too shows that everyone teaches everyone else
- This is a really important principle that also encourages them to keep up with advances for their patients and
- to work with others wherever they are (after residency) to keep up with the latest in medical care

Adult Learning

- ADULT LEARNI NG PRI NCIPLES:
- 8. TREAT learners like adult s.
- Any questions?

Adult Learning

- ADULT LEARNING PRINCIPLES:
- 9. *****GIVE learners control*****
- And this of course will be the hardest thing
- It requires a lot of learning and changes from a lot of people
- Society
- Administrators
- Faculty
- Residents
- Students
- To allow this to happen- But what a leap forward!!!

Summary

- The University of Tokyo School of Medicine is a great medical school
- There are really bright students, residents and faculty here
- We all care about teaching our students and residents clinical medicine because it is good for our patients!
- Adults learn differently and therefore teaching must be different
- Clinical medicine can be taught fairly well with clinical case conferences and interactive lectures

Summary

- I think that my experience with clinical case conferences and interactive lectures here has been successful and could be done
- Clinical exposure is good for students and residents if there is excellent and adequate faculty supervision
- The University of Tokyo could be at the forefront of new and improved methods of teaching clinical medicine to students and residents by encouraging more patient interaction and by hiring and honoring increased numbers of teachers of clinical medicine

Summary

I would like to thank a lot of people for the most wonderful experience I have had here in Japan

1. The IRCME for giving me the opportunity here
2. Dr Yamamoto as head of the IRCME
3. Drs Kiyoshi Kitamura and Hiroshi Nishigori for their guidance and help
4. Dr Kazuo Hara for his help with lectures and clinical case conferences
5. The staff at the IRCME: they were all wonderful to me and finally
6. My REAL boss: Wakako Miura for all her help and guidance and her many acts of kindness and understanding under adverse circumstances

Questions?