**HEALTH FRONTIERS LAOS PROJECT**

**SUGGESTIONS FOR VISITING EDUCATORS**

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**ACCEPTED EVIDENCE-BASED BEST PRACTICES FOR TEACHING**

* **Set clear lesson goals** – data supports this as a teaching best practice. Begin presentations with a list of clear learning goals.
* **Check for understanding** – teachers often ask questions when presenting, but the questions are not always used to assess learner understanding. Specifically tailor questions to check whether learners have understood your information, before moving on to the next part of the lesson.
* **Summarize with pictures and graphs** – a picture can be worth a thousand words, in particular in medical education
* **Provide opportunities for students to practice** – practice can solidify concepts, and helps learners retain knowledge and skills
* **Be flexible about how long it takes to learn** – learners vary widely in baseline knowledge and skills, and in how rapidly they acquire new knowledge. Given enough time, everyone can learn!
* **Get learners working together in productive ways** – each group member should be responsible for at least one task
* **Teach strategies, not just content** - there are strategies underpinning the effective execution of many tasks which should be taught alongside didactic content
* **Nurture meta-cognition –** meta-cognition involves learner consideration about options, choices and results. Encourage this!
* **Provide feedback**

**MEDICAL EDUCATION IN LAOS**

Teaching residents and medical students in Laos can be extremely rewarding. In Lao culture, the professor is a venerated social role. Doctors from the provinces, in particular, have had limited access to educational resources and are consequently very grateful for the donated time of visiting educators. Lao doctors are eager to learn, and willing to help one another learn. Most are highly engaged in the learning process. There are, however, unique issues to consider when creating a lecture or workshop for Laos.

* No gross anatomy in Lao medical school, consequently understanding of anatomical relationships/anatomy foundation is a weak area for many Lao doctors
* No medical textbooks written in Laotian or other Lao ethnic languages, which underscores the lack of accessible foundational medical information in Lao language
* Language barriers between teachers and learners are very common
* Learner levels and access to baseline medical information varies widely
* Many expensive medications and diagnostics do not exist in Laos. Some exist but are unaffordable for most patients. Diagnostic and management recommendations made in lectures or workshops should take in-country resources into account.
* Labs are available in Laos, but results are not always accurate. Many patients cannot afford daily labs. Be sensitive to these issues when teaching about diagnostic work-up and medical management.

**SPECIFIC SUGGESTIONS FOR DIDACTIC PRESENTATIONS**

Strategies for success when teaching Lao doctors in the classroom take educational best practices into account.

1. **Visiting faculty should review proposed talks with someone familiar with the skills and needs of the Lao residents who will attend.** This could be the Health Frontiers field representative or Emergency Medicine resident coordinator.
2. **Prepare to spend twice as long (or longer) to deliver a PowerPoint presentation.** Speaking carefully and slowly is highly recommended. Concepts should be repeated for emphasis. Check for learner understanding frequently. Language barriers, and the need for translation of concepts into Lao language for selected learners, is common. If your goal is to clearly communicate information to everyone in the room, expect it will take longer.
3. **Spoken and written language barriers are very common.** Identify a resident with more advanced English who can serve as translator for more difficult concepts. Interrupt your presentation after key points and ask this resident to translate. Frequently check understanding. Limit the amount of words on your slides.
4. **Set clear learning goals at the beginning of your presentation.** This is helpful for keeping a focus, and not taking on topics that are too broad. Ask participants at the beginning of the talk what aspects of the topic interests them most. Then be sure to check in with learners to make sure they learned what you hoped to teach.
5. **Use pictures whenever possible.** Cadaver study does not occur in Lao medical school. Many Lao doctors have only a rudimentary understanding of anatomy. When speaking on any topic, providing visual images and anatomic diagrams in addition to text can help learners develop a basic understanding of anatomical relationships and better understand physiology and pathophysiology.
6. **Encourage Lao doctors to ask questions throughout your presentation.**  While this can feel interruptive, comprehension will drastically improve if you take time to clarify issues which are confusing to learners. Frequently check understanding.
7. **Take time to learn about local diagnostic and therapeutic resources.** Lao doctors love to hear about technological advances in the diagnosis and treatment of disease in high-resource countries, but at the end of the day need practical, relevant information they can use in their daily work. Speaking about expensive new medications or imaging options that do not exist in Laos might be interesting but may not translate into improvements in practice.
8. **Layer information.** Many Lao doctors lack a comprehensive, basic foundation of medical knowledge. Help build that foundation during your presentations. Layer information – include basic pathophysiology, exam findings, diagnostic and treatment recommendations. Be careful and purposeful in your teaching. Be complete.
9. **Be comprehensive when teaching about medications.**  Lao doctors are aware of medications, but not always aware of major side effects and contraindications. Include this information when you present.
10. **Practice concepts in small groups, using case-based learning**. It is extremely effective to follow PowerPoint didactics with cases. Lao doctors do well learning in groups. Assign a case to each group. Make sure everyone has a role.
11. **Don’t shame learners for wrong answers or medical mistakes.** Lao doctors are doing the best they can in a very low-resource environment. Promote best practices. Understand shaming a learner, or the Lao health system as a whole, will not result in practice improvement.

**SPECIFIC SUGGESTIONS FOR ROUNDING WITH LAO DOCTORS ON WARDS**

It is very exciting to see patients with Lao residents and medical students. Your role is to be a coach and mentor, NOT the physician responsible for direct medical decision-making. Make sure the Lao doctors understand your role.

1. **Help them organize their presentations.** Make sure they obtain a complete History of Present Illness, Allergy list, Past Medical and Surgical History, Social History, Medication list and Review of Systems.

1. **Repeat physical exams yourself** to be sure all major findings have been identified
2. **Review lab results**, remembering labs in Laos can be inaccurate. Discuss this possibility with the Lao doctors if a lab result does not make sense.
3. **Help Lao trainees list suggest a comprehensive differential diagnosis.** Expand on the differential if there are major omissions.
4. **Share your opinion on the stated management plan without shaming**. Offer ideas, guidance and support.
5. **Provide feedback.** Identify good practices and areas for improvement for individual residents and students.
6. **Remember that many Lao patients cannot afford diagnostics, labs or certain medications.** Do the best you can, given the low-resource environment. Describe optimal care without shaming their system. Realize there have been extraordinary improvements over the last decade.

Below is a list of medical attending best practices (Elements of Good Teaching) from the University of Toronto, based on comprehensive and systematic review. Consider these!

[Best Practices in Teacher Assessment **- University of Toronto**](http://pg.postmd.utoronto.ca/wp-content/uploads/2016/07/BestPracticesTeacherAssessment2010.pdf)

pg.postmd.utoronto.ca/.../07/**BestPracticesTeacherAssessment**2010.pdf



**USEFUL MEDICAL RESOURCES IN LAO**

1. **WHO Pocketbook for hospital care for children**

These are main guidelines used for pediatric in-patient care

<http://www.who.int/maternal_child_adolescent/documents/9241546700/en/>

# Lao-Oxford-Mahosot Hospital-Wellcome Trust Research Unit (LOMWRU)

LOWRU is involved in many high quality medical research projects in Laos. It provides among the others data on epidemiology, guidelines on antibiotic use, patterns of antibiotic resistance etc.

* LOMWRU main website

<http://www.tropmedres.ac/lomwru-laos>

* LOMWRU - publications

 <http://www.tropmedres.ac/publications-reports-reviews> - [L](http://www.tropmedres.ac/publications-reports-reviews)OMWRU - annual reports

 <http://www.tropmedres.ac/lomwru-annual-reports-2013-2017>

* Treatment guidelines – you can find them in the Annual Report 2013 (page 67-71)

<http://www.tropmedres.ac/_asset/file/lomwru-2013-annual-report-to-lao-moh.pdf>