AQUIFER SCIENCES

In collaboration with the International Association of Medical Science Educators

PHASE TWO: **PROJECT DEVELOPMENT UPDATE**

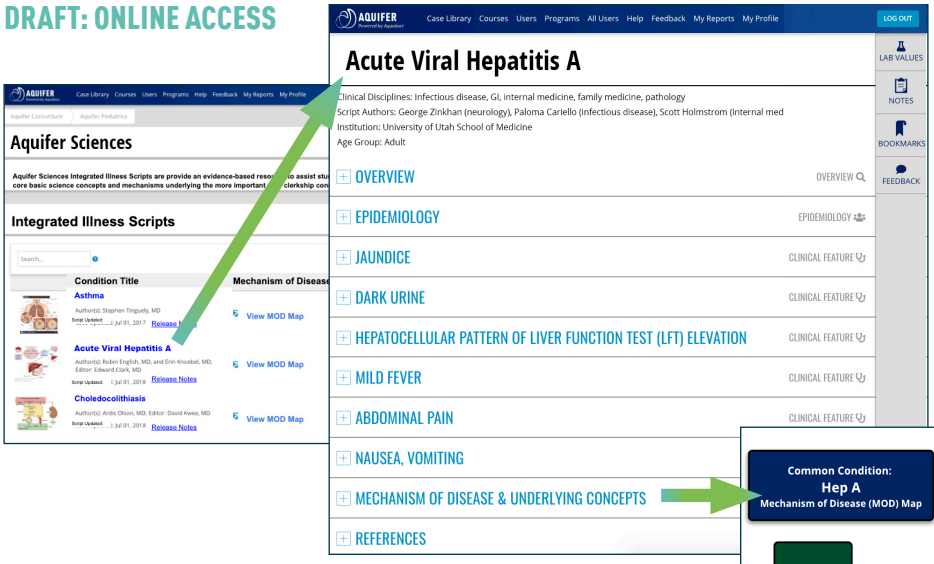
Phase Two of the Aquifer Sciences Initiative leverages the Aquifer Sciences curriculum to create teaching and learning tools to support cognitive integration of basic and clinical sciences.

Work is now underway at 12 pilot schools to create virtual patient cases and integrated illness scripts for clinical conditions routinely encountered in core clinical rotations.

INTEGRATED ILLNESS SCRIPTS WITH MECHANISM OF DISEASE MAPS

Six pilot school teams are completing final revisions on the first set of integrated illness scripts on key conditions seen in core clinical rotations. Building on the traditional illness script format, Integrated Illness Scripts embed basic science core concepts as causal and explanatory mechanisms associated with clinical features. This approach promotes cognitive interaction and higher diagnostic accuracy in novices (Woods 2007; Kulasegaram 2013). **50+ Integrated Illness Scripts are actively in development with more to come.**

DRAFT: ONLINE ACCESS



INTEGRATED ILLNESS SCRIPTS

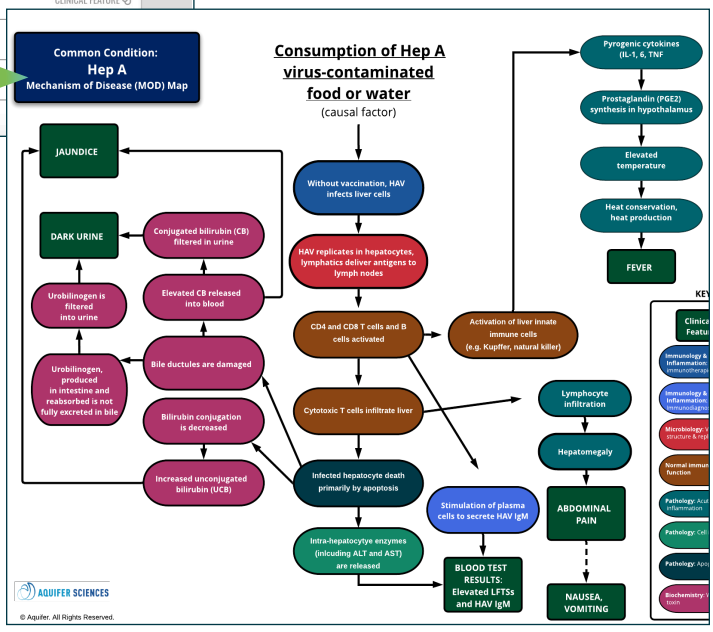
Include:

- Overview
- Epidemiology
- Clinical Features (up to 6)
- Mechanism of Disease Maps & Underlying Concepts
- References

MECHANISM OF DISEASE MAPS

MOD Maps trace the steps of pathophysiologic mechanisms from the underlying causes of disease to the observable and measurable clinical signs and symptoms.

Providing a visual representation of the relationship between the "original insult", key findings, clinical features, and the basic science mechanisms, MOD Maps enable students to see and integrate a more holistic view of the basic science knowledge relevant to the given condition.



VIRTUAL PATIENT CASES

Six pilot schools are actively authoring, editing, and peer-reviewing virtual patient cases that integrate basic science concepts. Virtual patient cases will enable students to self-assess and grow their foundational understanding through safe practice in making routine clinical decisions that place patient care quality, value, and safety at a premium. **36 virtual patient cases focused on core common conditions seen in clinical rotations are actively in development.**

REFERENCES:

Woods N. Science is fundamental: the role of biomedical knowledge in clinical reasoning. Medical Education. 2007; 41: 1173-1177.

Kulasegaram K et al. Cognition before curriculum: Rethinking the integration of basic science and clinical learning. Academic Medicine. 2013; 88(10): 1578-1585.

FREQUENTLY ASKED QUESTIONS

WHEN CAN I ACCESS SCRIPTS AND CASES?

Integrated illness scripts will be beta tested with a limited number of schools in late 2019. Virtual patient cases are currently in the content development phase. When content development is complete, cases will also move into beta testing. Pending additional content editing and technology development needs, scripts and cases will become widely available after beta testing.

HOW WILL I BE ABLE TO ACCESS SCRIPTS AND CASES WHEN THEY ARE FINISHED?

Aquifer plans to make all content available by subscription after the completion of beta testing. Pricing and launch dates are still to be determined. We expect more information to become available in late 2019 or early 2020.

HOW CAN I GET INVOLVED IN BETA-TESTING?

To receive more information on our beta testing program as it becomes available, please contact Sciences@aquifer.org or stop by our booth and complete a contact form. Pilot schools will be given priority, but additional opportunities are likely to be available.

WHAT LEARNER IS THIS CONTENT DESIGNED FOR?

The integrated illness scripts and mechanism of disease maps are designed to support cognitive integration of the basic and clinical sciences for all levels of medical learners. The cases build off of the content in the illness scripts and maps and are intended for students in the clinical phase of their training. The cases support and assess students' ability to apply their basic science understanding to make safe and effective decisions for clinical problems commonly encountered in the clerkship years. The third phase of the Initiative will focus on development of cases for the pre-clinical learner.

I'M INTERESTED. HOW SHOULD I BEGIN TO THINK ABOUT INTEGRATING THIS CONTENT INTO MY PROGRAM?

Integrated illness scripts, mechanism of disease maps, and virtual patient cases may be used to promote the integration of basic sciences through self-directed learning or may form the basis for in-class or bedside discussions. As you review our sample content, you are likely to think of multiple elements in your local curriculum where these tools intersect and would bolster learning.

HOW CAN I LEARN MORE?

- Visit our booth at the IAMSE Annual Meeting to connect with our staff and Leadership Team.
- **Phase One of the Aquifer Sciences Initiative, the Aquifer Sciences Curriculum Database, is publicly available at no cost at Aquifersciences.org.**
- To learn more about the Aquifer Sciences project, view a list of our academic contributors, please visit **Aquifer.org/courses/Aquifer-Sciences.**

PHASE TWO PILOT SCHOOLS

Thank you to all of our Phase Two Pilot School Program Teams, chosen from a highly competitive national call for participation.

Each pilot school has a team of clinical and basic science educators—along with senior medical students—working together to develop teaching and learning tools that integrate basic and clinical sciences.

CASE AUTHORING SCHOOLS:

- Eastern Virginia Medical School
- Louisiana State University School of Medicine in New Orleans
- University of California Davis School of Medicine
- University of California San Francisco School of Medicine
- University of Minnesota Medical School
- University of Wisconsin School of Medicine & Public Health

INTEGRATED ILLNESS SCRIPT AUTHORING SCHOOLS:

- Albert Einstein College of Medicine
- Case Western Reserve University School of Medicine
- Loma Linda University School of Medicine
- Philadelphia College of Osteopathic Medicine
- University of Utah School of Medicine
- Western Michigan University Homer Stryker MD School of Medicine