Case-based Instruction: Why, What and How

Why Case-based Instruction?
Research in cognition and learning consistently demonstrates that Case-based Instruction:
- Promotes deeper learning and retention
- Enhances the student’s ability to apply what they have learned in the clinical care setting
- Can be delivered “Face to Face” (F2F), on paper, or via e-based modules with no difference in trainee performance

How do I Select a Case?
1. What are your session objectives? Use cases to highlight a specific objective or a complex concept.
2. How much time is available? If you have just a few minutes, options include:
   A. Multiple choice type with a case vignette
   B. Pictures of patient and key findings
   C. Short video clip
   When you have more time options increase (see case types below).
3. Should I use a case that...
   A. Is simple or complex? Simple cases are best: Complexity of any “simple” case can then evolve (e.g., glucose levels evolve to diabetes and its associated complications to match objectives and trainee level).
   B. Common or rare? Pick commonly occurring conditions/situations (e.g., the top 10 leading causes of death in US). Clinically physicians are taught “when you hear hoof beats think horses not zebras”.
   C. Tells a story? Yes! Stories make the topic “sticky”. Cases are really “stories” and they stick more when you can make it personal. Incorporate a family member, a friend, a patient, or an ethical dilemma you’ve faced. Give the case an unexpected twist. Be as concrete as possible (use images). Keep the story credible, and if possible evoke an emotional resolve...all of which will promote retention.
   D. Has a “Correct Answer”? Yes, to reinforce your objective. (Unless your objective is to focus on uncertainty in medicine.) Best to require students to “generate” an answer as it helps them connect their bits of knowledge, promoting retention and meaningful learning.

What Types of Cases are Available?

<table>
<thead>
<tr>
<th>Topic</th>
<th>Typically available by organ system, condition or “disease” such as Lange Case Files Internal Medicine Casebook (click on table of contents) or topics: population health, ethics, communication, professionalism, systems of care</th>
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<tbody>
<tr>
<td>Format</td>
<td>Cases come in all formats: paper, “live” (video, standardized patient, or actual patient), virtual. A MedEdPORTAL search (the AAMC’s online repository for peer reviewed educational materials) for “Cases” revealed more than 500 hits in formats ranging from paper to virtual patients (58 hits) including a multimedia/animation on bacteriology.</td>
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How do I Find these Cases?
If a quick question to a colleague (send query to STS@mcw.edu) or a Google search does not yield what you are looking for, e-mail Discovery@mcw.edu and an educational specialist will follow-up to help you.

For more information on how to incorporate this strategy into your class, please contact Discovery@mcw.edu.