UMass Chan MEDICAL SCHOOL

Gist Statement or Abstract Problem Representation

When learning new information, people rely on 2 types of memory: verbatim and gist. *Verbatim representations* capture the literal facts or "surface form" of information, whereas *gist representation* capture its meaning or interpretation[1,2].

Why use gist representations?
Gist memories are more enduring over time and are more resistant to interference from distractions such as stress and emotion[1]. They decrease the cognitive and memory burden on the clinician. Gist representations are more likely to trigger a better and more focused differential that is very relevant to *this* patient as opposed to a broad differential of the chief complaint. For example, a differential of acute "RUQ Abdominal Pain" is much more valuable than a differential of "Abdominal Pain". The problem representation facilitates comparison with disease "Illness Scripts" which markedly enhances clinical problem solving.

In summary, when a learner *works* to translate the history, PE, and labs, into a concise, abstract representation of the patient's problem (Gist), s/he is much more likely to match it with the correct "illness script" (thus making the diagnosis), and is much more likely to remember this in the future which helps the clinician to fine tune their illness scripts and enhance them to include variations is presentation.

Generating a Gist Statement
Some people *summarize* the H&P prior to writing their assessment. A summary is closer to the verbatim representation (a rehash of what you already wrote or presented in your history), but the Gist statement (*gist representation)* is more than that. We are changing the patient's words into "medical" words, and we are using many descriptors (adjectives, adverbs, or modifiers). For example, it is not sufficient to say, "The patient has abdominal pain" because it is not specific enough. I can't problem solve "abdominal pain". "RUQ abdominal pain" is better but still too broad. Use the answers you got from your history to really describe the abdominal pain but NOT in the patient's words. For example if the patient's history is:

> 40 year old 220 pound woman who presents with 4 hours of RUQ abdominal pain. The pain initially was intermittent but over the last two hours has been constant and 8/10 on the pain scale. She threw up once and does not feel hungry. She has a temp of 102.4. PMH included 4 prior episodes of RUQ pain characterized by pain that would come and go and seemed to occur after eating French fries, hamburgers, or fried chicken. SH – she lives with her husband and 4 children and works as an accountant in a printing firm.

Next page →

Then a translation of each word or phrase looks like this:

History	**Translated to medical-ese**
40 yo	Middle aged
220 pound	Obese
Woman	Female
4 hours	Acute
Initially intermittent and now constant	Colicky → constant
Abdominal pain in RUQ	RUQ abdominal pain
8/10 on pain scale	Severe
Temp 102	Moderate fever
Threw up once	Non-specific. Let's ignore
Not hungry	
4 prior episodes of pain that would come and go	Relapsing, colicky
After eating French fries, hamburgers, etc	Triggered by fatty food
Lives with husband	Not relevant. Let's ignore
4 children	Multigravida
Accountant in printing firm	Not relevant. Let's ignore (unless you think there may be a relevant exposure at work)

The Gist statement would look like this:

> "Middle aged obese, multigravida, female with prior history of relapsing RUQ, colicky abdominal pain triggered by fatty meals, now presents with moderate to severe, acute RUQ colicky pain that has become constant, and a moderate fever.

This paints a picture. It let's us know that this is someone who likely had cholelithiasis which now developed into acute cholecystitis. "It eliminates or de-emphasizes less relevant or non-specific symptoms. This information is not lost it is just not carried front and center."(Catherine Lucey)

Next page →

The Gist Statement is based on the key findings of the case so far.

Overarching concept of the "Gist Statement"

1. Lead you to the diagnosis/Paints a picture of the patient
2. Let you know this patient's degree of illness.
3. Terse

Logistics of the "Gist Statement"

1. It should be a **concise statement** that accurately highlights the most pertinent features in a case without omitting *significant* points. It should include information from:
2. Epidemiology (age, gender, risk factors)
3. *Key* clinical features (symptoms, signs, labs, and imaging)
4. Consider:

    - Eliminating nonspecific terms
        - Malaise, fatigue, mild or transient diarrhea
    - Eliminating redundant terms
        - Tachypnea and SOB

5. **Transform specific details into medical terms** (example: "jaundice" rather than "skin is yellow".
6. Use qualifying adjectives and adverbs to better describe key findings.
7. **Paint a picture** of the patient including how ill the patient is, for example:

    - Location:
        - Diffuse vs focal
        - Monoarticular vs polyarticular
    - Severity: Mild vs severe
    - Progression:
        - Acute vs chronic; or constant vs intermittent

Ultimately, a good Gist Statement should provide the basis for developing an appropriate differential diagnosis and should be easy to compare with your illness scripts.

References

1. Reyna VF. A theory of medical decision-making and health: fuzzy-trace theory. Med Decis Making. 2008;28(6):850-865.
2. Slotnick SD, Schacter DL. A sensory signature that distinguishes true from false memories. Nat Neurosci. 2004;7(6):664-672.
3. Nendaz, Bordage G, Clinical Reasoning: from research findings to applications for teaching. Ped Med 2005; 6: 235-54: