Primer on Dissecting a Medical Imperative

Clinicians often face medical imperatives, which are broad statements that endorse a course of action. Consider two familiar medical imperatives: invest in patient safety and screen for cancer. Supporting these imperatives are the assertions that eliminating mistakes and early cancer detection will save lives.

Medical imperatives are rarely the result of a single study. Instead, they are generally the product of a complex mixture of observation, reasoning, and belief. Because the actions they engender may be beneficial, distracting, or possibly even be harmful, critical readers will want to carefully consider the line of reasoning on which they are based. Several steps may be useful in this regard.

Diagram the Line of Reasoning

Diagramming the argument that supports an imperative provides the structure necessary to carefully consider the issue. Figure 1 is a prototype for the line of reasoning for each of the above examples (other constructions are, of course, possible).

Understand the Vocabulary

The process of depicting the argument also helps to identify critical issues of definition (e.g., What constitutes an error? What constitutes cancer?) that may have important implications when the imperative is put into action (e.g., Do doctors agree on what an error is? Do pathologists agree on who has early cancer?). Carefully understanding the vocabulary may also help identify subtle changes in words (e.g., from preventable adverse event to error) that may have tremendous influence on public policy.

Distinguish between Observation and Inference

Once an argument is diagrammed, each element should be considered in terms of its source. Is it the product of an observation or the result of an inference? Generally, the observations appear earlier in the line of argument.

Critically Examine the Observations

The observations are typically the result of published findings and should be subject to the same scrutiny given any important finding (e.g., Is it relevant? Is it valid? Is it generalizable?).

Look Out for Leaps of Faith

Next, consider the inferences carefully. Some may be cautious and conservative, others may be reckless. The most common problem is to confuse association and causality (e.g., "Because people who

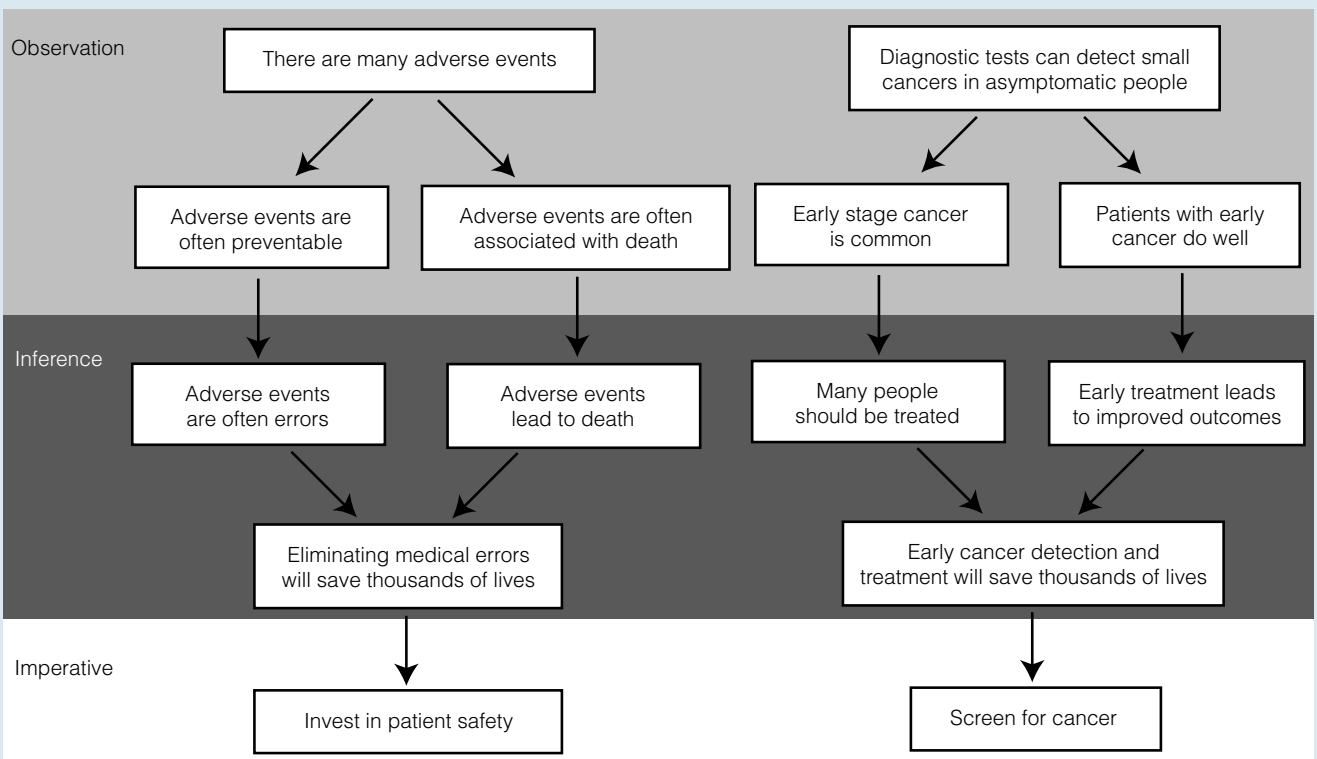

FIGURE 1. Lines of reasoning underlying two imperatives.

die in the hospital often experience adverse events, preventing adverse events will save lives" or "Because patients with early disease do well, early treatment will improve outcomes").

Ask about Vested Interest

How impartial is the person (or group) promoting the imperative? Obviously, some degree of intellectual interest is expected. But the presence of strong professional and/or financial interests may unduly influence the call for action (e.g., safety consultants call for safety initiatives, mammographers calling for mammography).

Consider Unintended Effects

Finally, think hard about the net effects (intended and unintended) of the proposed course of action. Even the simplest action can have unintended effects. For example, cancer screening may help some people avoid late-stage disease, yet lead others to be treated unnecessarily (e.g., those with nonprogressive cancer). And all actions have opportunity costs. For example, dollars devoted to nurse clinicians to improve patient safety are dollars taken from something else. If that something is routine hospital nursing services, the net effect may be to diminish patient safety. Just because net effects are difficult to predict, it doesn't mean they can be ignored.

It's important to think about medical imperatives carefully. When you do so, you will probably find that most are oversimplifications. Unfortunately, the world is more complex than any of us would like. Most imperatives are probably neither right nor wrong—instead, there are settings where they are useful and others where they are not.

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