

Online Supplementary Material

Christensen RE, Fetters MD, Green LA. Opening the black box: cognitive strategies in family practice. *Ann Fam Med*. 2005;3:144-150.

<http://www.annfammed.org/cgi/content/full/3/2/144/DC1>

Supplemental Appendix. Sample Interpretative Notes From the Task Diagram

Template Driven

The task diagram revealed 8 steps to the process:

1. The physician glances at the schedule, perhaps the night before, perhaps the morning of clinic.
2. The physician examines the schedule in more detail immediately before clinic. At this point, the physician addresses time management issues, ie, better take extra time with this patient or this one won't take very long, etc. Mental preparation also begins, which for this physician is the beginning of template activation.
3. The physician then checks to see whether a learner is assigned. This dichotomy was not explored, and we proceeded as though there were no learner.
4. The next stage is chart orientation to the patient, which occurs outside the door of the examination room. Here the physician cursorily checks the chief complaint and information from the previous visit and checks to make sure necessary materials are ready, ie, if the patient visit is for laboratory follow-up, make sure the laboratory report is there. This activity doesn't take more than 30 seconds.
5. The actual patient interaction unfolds in the following manner: The physician uses the immediate appearance of and the relationship with the patient to further activate templates. The session is opened to the patient's agenda. While the patient is talking, the physician reviews the medical chart looking for notes of previous visits and preventive care or follow-up issues. Minor issues brought up by the patient ("I have this spot on my hand") are immediately addressed during this process. Larger issues coming from the patient or from the chart are integrated and prioritized in template activation.
6. The physician performs the physical examination before making a diagnosis or plan. This [what?] is usually short and not usually of significant impact.
7. The assessment and plan for the patient is explained.
8. The interaction ends with a summary of what has occurred and a last opportunity for the patient to bring up other issues.

General Strategy

This physician operates on a series of templates based on age, sex, and chronic disease status. These templates are interactive in that a diabetes template will alter a concurrent hypertension template. The services within each of these templates are prioritized and arranged by importance and time requirements. These templates are altered by an explicit system of repetition. When new information affects one of the templates (eg, new guidelines for triglyceride levels), the information is put into an easily accessible binder so that it can be referenced quickly until sufficient repetitions have occurred to alter the template.

Helpers

- Generally helpers narrow the patient care toward one or another template
- Having easily accessible summaries by problem, so the physician knows what templates need to be activated at the visit
- An explicitly scheduled visit for a problem that fits a template
- Patient taking responsibility for telling the physician about a problem that would prompt the template
- Medical assistant recording the chief complaint and arranging the chart to prompting the template, and implementing the various aspects of the template.

Negatives

- An ill-defined visit at which the patient is vague or brings a laundry list of concerns, which confuses prompting of templates
- Bad records, poor access to records, and noncontinuous care make for poor prompting of templates and more difficult implementation, because what is necessary is unknown