

## Online Supplementary Material

Woolley A, Kostopoulou O. Clinical intuition in family medicine: more than first impressions. *Ann Fam Med*. 2013;11(1):60-66.

<http://www.annfammed.org/content/full/11/1/60>

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### Supplemental Appendix. Case Examples of the 3 Decision Process Types

#### A Case of Gut Feeling

##### Physician 11

A 30 year-old man presented with bleeding when passing stool. He had suffered from irritable bowel syndrome (IBS) and was clearly an anxious patient. The physician reasoned that events in the patient's family life had increased his anxiety, exacerbating his IBS, which led to constipation and then hemorrhoids. This diagnosis seemed to be confirmed on examination, and the patient was treated accordingly. The physician also ordered some blood tests to rescreen for IBS. The blood results were all normal and given to the patient via a telephone consultation, during which he confirmed that the symptoms had gone away.

Physician 11: "It seemed like a fairly straightforward case."

One month later, the patient consulted again saying he had woken up in a pool of blood. The physician was alarmed by this information, as it was unusual and not something the physician was aware of in the literature. Despite the unusual presentation and young age of the patient, the physician now felt that something much more serious was going on.

Physician 11: "I thought, this isn't right, it's not behaving like IBS or the piles that we assumed [was the cause] the first time around. This has to be investigated a bit more thoroughly, and someone has to look inside to see where this bleeding's coming from. I don't like the feature in his history of bleeding without any particular, what's the word, any cause for it that I could see."

The patient had medical insurance and was able to make an urgent appointment with a colorectal surgeon privately. The physician said that had the patient not been able to do so, the physician would have referred him urgently via the NHS (National Health Service), despite not meeting the urgent referral guidelines.

Interviewer: "So did he meet any of the criteria for urgent referral?"

Physician 11: "I think the painless bleeding, yes. But usually in the guidelines it says for 6 weeks or more [in a patient older than 60 years], which he didn't conform to. And his hemoglobin was normal. And I think that was it basically. So there was very little actually that would conform to the guidelines. And he was diagnosed with a rectal carcinoma, which was a great shock to all of us, and we discussed it later in the surgery. ...[S]ome of the others felt that they wouldn't necessarily have [referred]."

## A Case of Recognition

### Physician 13

A woman in her late 30s saw the physician during morning surgery. She reported vague symptoms of weakness in her legs and intermittent abdominal pain and shakiness. Immediately, the physician felt that the patient was abusing alcohol.

Physician 13: "But I don't know what, I think, what triggered in my mind that, I think, it was related to alcohol was because—I don't know if I got a subtle smell of alcohol on her, I don't know, it was like a kind of subtle smell, but also kind of her behavior and interaction, to my mind, just felt like she'd had a drink that morning. I think it was a multitude of things that might have triggered in my mind that it was alcohol, because it didn't really fit with any clear diagnostic criteria, and there was a kind of hint that I could pick up some nonverbal cues that she'd been drinking."

The physician carried on with the consultation, excluding other possible causes of neuropathy. When the patient was asked about alcohol, she strongly denied drinking at all, saying that she only drank at weekends and even then very little. The patient also answered negatively to all the questions on the CAGE questionnaire for alcohol abuse.

Physician 13: "She denied it. I thought, well, I've still got some hint that she has been. So my thought was, why is she denying it?"

On examination, the patient had slight nystagmus, which the physician attributed to intoxication.

Physician 13: "She did agree to have blood tests... I surreptitiously added blood alcohol level on, which I didn't consent. I consented that we were going to do some blood tests, 'check your liver, check your inflammatory markers, blood count, B<sub>12</sub>, all these kind of things that could cause neurological things.' And the blood alcohol level was very high when we did it that morning."

The physician was then able to challenge the patient about her alcohol abuse, which she admitted, and treatment was started.

## A Case of Insight

### Physician 3

A woman in her 80s was brought in urgently by her daughter and son-in-law. She had a severe headache and was holding her head in her hand. She was able to walk but was finding it difficult. She had been vomiting and had abdominal pain. The patient was able to talk but looked very unwell. The physician immediately recognized this as a serious problem but was unsure about its cause. The first thing that he/she remembered considering was a brain bleed, because the patient presented with a headache as the main complaint.

The headache had come on gradually the previous evening, after a day spent watching television. The patient then started vomiting and complained of blurred vision and pain around her left eye and left side of the head. The physician thought that a subarachnoid hemorrhage was unlikely because of the gradual onset but was still considering it as a possibility along with temporal arteritis, meningitis, or a very serious viral infection.

Physician 3: "There really were no clues, or clues that I couldn't match up."

The patient was examined fully. The physician now felt able to exclude meningitis and a vascular stroke but did not have any other ideas about what could be going on. Some tenderness was found

around the left eye, and she was clearly uncomfortable during the eye examination. The pupils were slow to react. The physician focused on the eye problem and found out that the patient had no previous eye complaints.

Suddenly, the physician remembered that glaucoma came on at night and could cause serious sickness.

Physician 3: "Just sitting down and wondering, what the heck causes this eye problem? And diarrhea and vomiting? And I was just sitting there, and I suddenly thought, 'Glaucoma!' And I don't know where it came from. I've never seen a case of glaucoma."

The physician verified the hypothesis by searching for literature on glaucoma and found that acute cases could cause vomiting. The local A&E [can you expand for US audience?] had no ophthalmologist, so the physician referred the patient to a specialist eye hospital.

Physician 3: "I remember thinking, no, it's not any of these conditions [subarachnoid hemorrhage, vascular stroke, temporal arteritis, meningitis, head injury or a severe viral infection]. And I actually had to stand up to that with the ambulance crew, with the family.

"[The family] were a bit surprised at that because they were, like, 'What? How can that eye be causing all this?' And, when the ambulance crew came, I had the same problem, because it's an emergency, and reception were very confused as well as to why this hobbling lady was going to the eye hospital. And I just thought: 'B\*\*\*\*y hell, if I'm wrong....' Then I thought: 'No, if I'm wrong, she's with an ambulance. What could happen apart from the fact she might develop meningitis? But she hasn't got a temperature. There's something telling me that it's not those other serious conditions, it's this serious condition.'"

The ophthalmologist confirmed the diagnosis.