Commentary: Quality assuring our learning from others

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This fascinating case has generated a rich diversity of responses on bmj.com,¹ and as many have said, all thanks to Miss Webb, her family, and medical team for allowing us to participate in such productive case based learning. The diversity of responses is multidimensional: across disciplines; across countries, health systems, and medicolegal and ethical contexts; across levels of experience; and across the spectrum of orthodoxy. Therein lies much of the value—we are prompted to consider aspects that we would not otherwise have thought about. But how do we separate the cranky from the erudite?

We need to adapt the tools of evidence based learning for appraising expert opinion and grey literature, which includes web resources.² Are there any reliable filters that we can use? The clues we have on the rapid responses website are the name, specialty, location, and perhaps seniority of the contributor. Looking at the 60 or so responses to this case, none of that information seems to help the quality appraisal process.

Some contributors cite references. This is helpful, especially if we take the time to check them out. Are they in peer reviewed journals? Do they support the writer's contention? What was the reaction of the scientific community to the publication? The presence or several references may add only pseudo-weight to a contention. In the end, there is no short cut to the process of validating an interesting contribution to

case discussion; we have to ponder it and triangulate it before we can safely incorporate it into the scripts³ that influence our practice.

This case is memorable. Like many of the cases that I have encountered or been taught about, it will enter my memory bank and perhaps contribute to future "pattern recognition" components³ of my clinical reasoning. When is the right time to appraise the quality of the suggestions made by respondents? If, in years to come I encounter a clinical situation which triggers recall of something someone said in a case discussion, I am obviously wise to check the most recent evidence before acting in a situation of uncertainty. So do I need to bother about separating the wheat from the chaff when I read these contributions? I am not aware of any evidence from educational psychologists on this point, but common sense would suggest that I should critically appraise suggestions from colleagues here and now. If I don't, I might later be detrimentally influenced by the easily recalled wacky suggestions rather than supported by the wise advice from fellow learners.

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- 1 Siotia AK, Chaudhuri A, Muzulu SI, Harling D, Muthusamy R. Postoperative hypoxia in a woman with Down's syndrome: case outcome. *BMJ* 2005;330:1068.
- 2 Sackett D, Richardson WS, Rosenberg W, Haynes RB. *Evidence based medicine: how to practice and teach EBM*. 2nd ed. London: Churchill Livingstone, 2000.
- 3 Schmidt H, Norman G, Bosshuizen H. A cognitive perspective on medical expertise: theory and implications. *Acad Med* 1990;65:611-21.

Commentary: Easy yet so easily missed

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It has been an interesting few weeks. So many doctors from all over the world have responded to Miss Webb's case.¹ Numerous differential diagnoses were suggested, including Eisenmenger's syndrome, obstructive sleep apnoea, chest infection, drug overdose, heart failure, pulmonary embolism, myasthenia gravis, Guillain-Barré syndrome, atlanto-axial subluxation, Addison's disease, hypoparathyroidism, glomerulonephritis, sepsis with immune deficiency, atrial septal defect, and adult respiratory distress syndrome. Some readers questioned the diagnosis of Down's syndrome and some felt that we had deliberately withheld relevant information to make the case more interesting (definitely, not true).

Nevertheless, many respondents got the diagnosis of hypothyroidism, even from just the first part of the case report. (It was interesting that some of the readers thought about an endocrine cause because one of the authors is an endocrinologist). One of the respondents even suggested the full diagnosis of pericardial effusion and hypothyroidism. We, however, missed the diagnosis on initial presentation, probably because of our lack of awareness of an association between Down's syndrome and hypothyroidism.

Problems of diagnosis

Children with Down's syndrome usually have routine screening for hypothyroidism. We do not know why Miss Webb was not screened. You could argue that the presence of menorrhagia in itself would usually trigger most doctors to order thyroid function tests. Again, this was not done preoperatively. When Miss Webb became very unwell postoperatively, she did not have features like bradycardia, hypothermia, and low voltage QRS complexes on her electrocardiogram, and we did not suspect hypothyroidism. The delayed diagnosis led to a lot of misery for Miss Webb.

Patients with Down's syndrome are likely to have a variety of illnesses including thyroid disease, diabetes mellitus, congenital heart defects, menorrhagia, depression, obsessive compulsive disorder, hearing loss, atlanto-axial subluxation, and Alzheimer's disease. Hypothyroidism is quite common, and in one study 16% of patients with Down's syndrome had evidence of either compensated or uncompensated hypothyroidism.² History and clinical examination may not give rise to suspicion of hypothyroidism in such patients because many of the features of hypothy-