

EDITOR'S PERSPECTIVE

Rapid assessment of health literacy on admission to the hospital

Health literacy is the measurement of knowledge and skills that a patient needs to make informed medical decisions regarding his or her own medical care or the care of others for which they may be responsible (1). Assessing health literacy has become a point of emphasis for organizations dealing with health care delivery. The impact of low health literacy is widespread (2, 3). Patients with low health literacy often have miscommunication with their health care providers and have an increased rate of hospital admissions (4). They also ask fewer questions (5). Although there have been efforts to educate the public, many feel that some trends in hospitals have made this more challenging, for example, the widespread drift toward shift-oriented hospitalists who typically have no prior association or interaction with the inpatients they are caring for (1). In addition, in a number of settings, poor resident communication skills have been observed (6).

A study in the Community Hospital Education and Research Network within the Association of Program Directors in Internal Medicine (APDIM) demonstrated that approaching the issue of health literacy is typically not part of resident patient care competency development (7). A subsequent survey of residents at two community hospitals demonstrated a lack of confidence in assessing health literacy in their inpatient encounters (8). Contributing to this lack of confidence is the status of cultural backgrounds for residents in training at community hospital settings. In typical community hospital medicine residencies, the majority of trainees speak English as a second language (ESL). When one is dealing with matters such as medical jargon, acronyms, technical terms, and colloquial abbreviations, it is more difficult for some ESL speakers to identify and communicate with low health literacy patients. Residents can screen for low health literacy with a validated shorthand query. I would advise doing it late in the interview when trust has been developed and when a question about dealing with medical paperwork better fits the context. One simple example used effectively asks 'How confident are you in filling out medical forms by yourself?' (9).

High health literacy

High health literacy is not to be overlooked and presents its own framework of challenges. If training residents to adjust to low health literacy patients is a largely unfulfilled

part of curricula, training residents and students to recognize and adjust to high health literacy status is even less common. I am aware of no published guidelines for medical students or internal medicine residents in this area. Why is this an important issue? A highly literate patient often has concerns that, without provider probing, may stay hidden. In my experience on rounds, it takes special skills to uncover what highly literate patients may be thinking or feeling. Many local Baltimore physicians receive their own medical care at our community hospital. To maximize quality history taking, I believe that the patient must be engaged at their level. The key is for the interviewer to be cognizant of this issue. The professional that digs deep into the patient's profile is likely to improve patient satisfaction as well as other clinical outcomes. Early assessment of high literacy levels is also important to protect oneself should adverse outcomes occur with consequential litigation.

In the 2 years that I have been on rounds with medical residents on the general inpatient service at our community hospital, I have noticed many things regarding high literacy.

- Patient occupations are often available in the medical record; levels of education usually are not;
- Retired physicians as patients sometimes want to manage their own care;
- Family members are loved ones who want the best for the patient and often are the decision makers and spokespersons, particularly if they have a health care background;
- Family meetings are often the setting for interrogation of the physician, particularly if there is no previous relationship (which there frequently isn't)
- Technology poses particular challenges. Earlier in my career, patients were not nearly as well prepared. Today, informed patients and families will likely be current and well read, compelling physicians, particularly those in training, to be well prepared for probing and insightful questions.

The initial approach is important

The key thing is to be aware of the issue of health literacy and to be an active assessor. As I tell my second year

medical students, your physical exam should start the moment you see the patient; so should your assessment of health competency which should coincide with the chief complaint and history of the present illness. We ought to know not only the problem but also who this patient is. Among our first orders of business is to develop an *estimate* of the *patient profile*. Using the medical record, conferring with ER staff, and interviewing the patient and/or family, we can develop an informed opinion on this person. There are limits to what is available in the chart, especially considering sensitivity about privacy issues. In my opinion, the chart can give you a sense of direction but the really productive part of the encounter is likely to be a conversation with the patient. I recommend that following assessment of health literacy through the medical record and patient interview, the subsequent presentation of the case should begin with a health literacy estimate.

Summary

Part of the initial encounter between a resident and an admitted patient should include an estimate of health literacy – low, average, or high. This allows the interviewer to understand who he/she is dealing with, is likely to improve outcomes, and enables a respectful level of interaction. There is a well-known local trauma center that advertises frequently on television in Maryland. The ad shows a group of providers in scrubs about to start surgery on an anesthetized patient. The surgeon prefaces the case by announcing ‘This is Joe. He is a 35 year old English teacher with 2 kids’. When I teach medical students to take histories in their first patient contacts, I tell them to establish the patient profile as part of the present illness, and that this estimate should precede or follow the chief complaint.

Also in this issue, we are publishing 18 additional manuscripts – the most in any issue to date. Case reports include three acute neurological presentations: neuromyelitis optica presenting as hiccups (10), intrapulmonary AVM presenting as cerebral emboli (11), and spontaneous internal carotid dissection presenting as amaurosis fugax (12). There are three cardiology cases: complete heart block caused by blunt trauma (13), cardiac lipoma (14), and a massive atrial mass (15). There are two GI cases: hereditary angioedema presenting as irritable bowel syndrome (16) and a colonic burn confused with possible perforation following colonoscopic cauterization (17). Other case reports include clindamycin hepatotoxicity (18), difficulty in distinguishing heparin-induced thrombocytopenia from other complications of open heart surgery (19), and a very important case of nosocomial corneal infection with MRSA in a medical intensive care unit (20). This report is emblematic of the clinical value of reporting cases (21). A case of methemoglobinemia serves as the basis of reviewing mechanisms and

treatment of this rare condition (22), and there is a case of transient diabetes (23).

There is a case-based review of identification and treatment of foreign body aspiration (24). There is a radiology image case with Chilaiditi’s sign (25) and an ECG abnormality characteristic of Wellens’ sign (26) and its clinical significance. There is a perspective piece on why bow ties for clinicians really make sense (27). And finally, there is a companion piece (28) to our inaugural issue in our series on research theory (29).

The sources of the published manuscripts of this issue are Reading (PA), GBMC (MD), St. Thomas Midtown (TE), Mather Memorial (NY), Abington (PA), Atlanticare (NJ), York (PA), VCU (VA), Peoria (IL), Metropolitan (NY), and Interfaith (NY).

Our annual report on the journal to the readers will be included in the fifth anniversary special scheduled to be posted on December 7, 2015.

Robert P. Ferguson, MD

Editor

Email: rferguson@gbmc.org

References

1. Ferguson RP. Health literacy. *J Community Hosp Intern Med Perspect* 2013; 3(2): 21217, doi: <http://dx.doi.org/10.3402/jchimp.v3i2.21217>
2. Howard DH, Gazmararian J, Parker RM. The impact of low health literacy on the medical costs of Medicare managed care enrollees. *Am J Med* 2005; 118: 371–7.
3. Paasche-Orlow MK, Wolf MS. The causal pathways linking health literacy to health outcomes. *Am J Health Behav* 2007; 31(Suppl): S19–26.
4. Baker DW, Parker RM, Williams MV, Clark WS. Health literacy and the risk of hospital admission. *J Gen Intern Med* 1998; 13: 791–8. doi: <http://dx.doi.org/10.1046/j.1525-1497.1998.00242.x>
5. Katz MG, Jacobson TA, Veledar E, Kripalani S. Patient literacy and question-asking behavior during the medical encounter: A mixed-methods analysis. *J Gen Intern Med* 2007; 22: 782–6. doi: <http://dx.doi.org/10.1007/s11606-007-0184-6>
6. Karsenty C, Landau M, Ferguson R. Assessment of medical resident’s attention to the health literacy level of newly admitted patients. *J Community Hosp Intern Med Perspect* 2013; 3(3–4): 23071, doi: <http://dx.doi.org/10.3402/jchimp.v3i3-4.23071>
7. Ali NK. Are we training residents to communicate with low health literacy patients? *J Community Hosp Intern Med Perspect* 2013; 2(4): 19238, doi: <http://dx.doi.org/10.3402/jchimp.v2i4.19238>
8. Ali NK, Ferguson RP, Mitha S, Hanlon A. Do medical trainees feel confident communicating with low health literacy patients? *J Community Hosp Intern Med Perspect* 2014; 4(2): 22893, doi: <http://dx.doi.org/10.3402/jchimp.v4.22893>
9. Chew LD, Griffin JM, Partin MR, Noorbaloochi S, Grill JP, Snyder A, et al. Validation of screening questions for limited health literacy in a large VA outpatient population. *J Gen Intern Med* 2008; 23(5): 561–6. doi: <http://dx.doi.org/10.1007/s11606-008-z-5>
10. Mandaliya R, Boigon M, Smith DG, Bhutani S, Ali N, Hilton C, et al. A diagnostic challenge in a young woman

- with intractable hiccups and vomiting: A case of neuromyelitis optica. *J Community Hosp Intern Med Perspect* 2015; 5: 28850, doi: <http://dx.doi.org/10.3402/jchimp.v5.28850>
11. Abed K, Premachandra L, Vankawala V, Sun Q. Intrapulmonary arteriovenous malformation causing recurrent strokes. *J Community Hosp Intern Med Perspect* 2015; 5: 28843, doi: <http://dx.doi.org/10.3402/jchimp.v5.28843>
 12. Abed K, Misra A, Vankawala V. Spontaneous internal carotid dissection in a 38-year-old woman: A case report. *J Community Hosp Intern Med Perspect* 2015; 5: 28844, doi: <http://dx.doi.org/10.3402/jchimp.v5.28844>
 13. Morsy M. Complete heart block and asystole following blunt cardiac trauma. *J Community Hosp Intern Med Perspect* 2015; 5: 28423, doi: <http://dx.doi.org/10.3402/jchimp.v5.28423>
 14. Ismai I. Cardiac lipoma. *J Community Hosp Intern Med Perspect* 2015; 5: 28449, doi: <http://dx.doi.org/10.3402/jchimp.v5.28449>
 15. Al-Fakhouri A, Hwang I, Alsafwah SF. Giant right atrial mass obliterating the right atrium. *J Community Hosp Intern Med Perspect* 2015; 5: 29607, doi: <http://dx.doi.org/10.3402/jchimp.v5.29607>
 16. Benrajab K, Singh G, Obah E. Hereditary angioedema presenting as irritable bowel syndrome: A case of early closure. *J Community Hosp Intern Med Perspect* 2015; 5: 29114, doi: <http://dx.doi.org/10.3402/jchimp.v5.29114>
 17. Jehangir A, Bennett KM, Rettew AC, Fadahunsi O, Shaikh B, Donato A. Post-polypectomy Electrocoagulation Syndrome: A rare cause of acute abdominal pain. *J Community Hosp Intern Med Perspect* 2015; 5: 29147, doi: <http://dx.doi.org/10.3402/jchimp.v5.29147>
 18. Moole H, Ahmed Z, Saxena N, Puli SR, Dhillon S. Oral clindamycin causing acute cholestatic hepatitis without ductopenia: A brief review of idiosyncratic drug-induced liver injury and a case report. *J Community Hosp Intern Med Perspect* 2015; 5: 28746, doi: <http://dx.doi.org/10.3402/jchimp.v5.28746>
 19. Khanal R, Karmacharya P, Forman DA. Heparin-induced thrombocytopenia following coronary artery bypass grafting: A diagnostic dilemma. *J Community Hosp Intern Med Perspect* 2015; 5: 28745, doi: <http://dx.doi.org/10.3402/jchimp.v5.28745>
 20. Braich PS, Aggarwal S, Mukhtar S, Almeida DRP. Nosocomial keratitis caused by methicillin-resistant *Staphylococcus aureus*: Case report and preventative measures. *J Community Hosp Intern Med Perspect* 2015; 5: 28769, doi: <http://dx.doi.org/10.3402/jchimp.v5.28769>
 21. Ferguson RP. The value of reporting cases. *J Community Hosp Intern Med Perspect* 2011; 1: 15884, doi: <http://dx.doi.org/10.3402/jchimp.v1i0.15884>
 22. Khanal R, Karmacharya P, Pathak R, Poudel DR, Ghimire S, Alweis R. Do all patients with acquired Methemoglobinemia need treatment? A lesson learnt. *J Community Hosp Intern Med Perspect* 2015; 5: 29079, doi: <http://dx.doi.org/10.3402/jchimp.v5.29079>
 23. Moole H, Moole V, Mamidipalli A, Dharmapuri S, Boddireddy R, Taneja D, et al. Spontaneous complete remission of type 1 diabetes mellitus in an adult – Review and case report. *J Community Hosp Intern Med Perspect* 2015; 5: 28709, doi: <http://dx.doi.org/10.3402/jchimp.v5.28709>
 24. Oke V. Use of flexible bronchoscopy in an adult for removal of an aspirated foreign body at a community hospital. *J Community Hosp Intern Med Perspect* 2015; 5: 28589, doi: <http://dx.doi.org/10.3402/jchimp.v5.28589>
 25. Danve A, Kulkarni S. Beware of Chilaiditi sign!! *J Community Hosp Intern Med Perspect* 2015; 5: 28622, doi: <http://dx.doi.org/10.3402/jchimp.v5.28622>
 26. Hollar L, Hartness O, Doering T. Recognizing Wellens' syndrome, a warning sign of critical proximal LAD artery stenosis and impending anterior myocardial infarction. *J Community Hosp Intern Med Perspect* 2015; 5: 29384, doi: <http://dx.doi.org/10.3402/jchimp.v5.29384>
 27. Frei AS. Bow tie or no tie: A rule to reduce healthcare-acquired infections. *J Community Hosp Intern Med Perspect* 2015; 5: 28808, doi: <http://dx.doi.org/10.3402/jchimp.v5.28808>
 28. Cardinal LJ. Central tendency and variability in biological systems: Part 2. *J Community Hosp Intern Med Perspect* 2015; 5: 28972, doi: <http://dx.doi.org/10.3402/jchimp.v5.28972>
 29. Cardinal LJ. Central tendency and variability in biological systems. *J Community Hosp Intern Med Perspect* 2015; 5: 27930, doi: <http://dx.doi.org/10.3402/jchimp.v5.27930>