An Approach to Teaching Interdisciplinary Health Care to Preclerkship Medical Students

The specialty of pediatrics is exemplary in interdisciplinary medical practice. Hospital pediatricians are often at the heart of such teams, and we are therefore well situated to be educational leaders preparing preclerkship medical students for interdisciplinary work. This essay explores the experience I had preparing and piloting an interdisciplinary session for students in their “Introduction to Clerkship” course. A similar session could be created in other centers with equally positive results.

With the growth of academic, hospital-based pediatrics, we have the opportunity to increase our professional presence in preclerkship medical education. The skill set of hospital pediatricians extends beyond the “medical expert” role, with leading competencies in the areas of communication and collaboration. Pediatric teams are among the best in all areas of medicine for being inclusive, multidisciplinary, and patient and family centered. Pediatric hospitalists are therefore, well positioned to teach these skills at the medical school.

Two years ago, I became involved in the “Introduction to Clerkship” course at the university affiliated with our pediatric hospital. I was assigned leadership of 1 of the most consistently poorly rated lectures: “Interdisciplinary Medicine in Clerkship.” I immediately thought back to my own medical education, where lectures with this title were uniformly dreaded, bound to be esoteric, and dry in both content and delivery. So, I charged myself with the task of finding a way to present the topic that would be engaging, relevant, and leading to a definable outcome.

After all, I am intimately aware of the importance of interdisciplinary work. As a member of our hospital’s Complex Care team, I am routinely part of multidisciplinary team meetings. At these meetings, I learn vast amounts about the patients I am caring for, from their true communication capabilities, to the mobility barriers they are learning to overcome, to the family’s coping with day-to-day activities. The therapists I work with are continually educating me about the resources available in our inpatient and outpatient communities and how to access those resources in a timely fashion.

The idea was therefore born to host a live interdisciplinary meeting for the preclerkship class. I gathered key members of our Pediatric Neurorehabilitation team, including a nurse specialist, physiotherapist, occupational therapist, speech/language pathologist, social worker, and neurologist. To try to avoid overwhelming the forum, I did not include a pharmacist or dietitian, although I certainly recognize their immense contributions in these settings. We met as a team and devised a fictional patient: Bobby Gardam, an 8-year-old recovering from an acute intracranial
hemorrhage resulting in dense hemiparesis (Appendix [student handout]). We developed a challenging, although realistic, backstory for Bobby, a boy from a single-parent family, whose mom was increasingly worried about finances and losing her job due to the time spent at the hospital, and whose younger brother’s needs for attention were leading to behavior degeneration and fewer family friends willing to help with his care.

The medical students received a preparatory session, wherein I discussed with them the literature supporting interdisciplinary work leading to improved patient outcomes, earlier discharges, and increased practitioner satisfaction.\(^1,2,3,4\) The students were asked to read an article from Nursing Times entitled “Improving Team Meetings to Support Discharge Planning.” In a Think, Pair, Share activity, the students were asked to consider who should lead health care team meetings, the qualities of a good leader, and what they as a medical student could contribute to a team meeting. We then discussed what I consider a stunning finding in that article: that 46% of meetings reviewed in this article had no documentation left in the patient care record, such that decisions and items for follow-up were at great risk of being lost in translation.

The students were asked to consider the elements of strong postmeeting documentation. Items included when the meeting occurred, who was there, what decisions were made, what outstanding tasks were assigned and to whom, and when a follow-up meeting would be arranged (if needed). The students were then ready for their task: participate in fictional patient Bobby Gardam’s multidisciplinary discharge planning meeting, then provide appropriate chart documentation to be reviewed as a mandatory assignment, required to successfully complete their “Introduction to Clerkship” course.

The live meeting was easy to create. We simply played the roles we play in daily life. Bobby became a real patient to us, as we decided whether he could try oral feeding, if he was safe to start pool-based therapy, how long he may need to continue his anti-epileptic medication, and what financial and social aid we could offer his struggling mother. The lecture theater was silent for the 40 minutes we met, aside from the occasional student asking a question (“What is a video-feeding study?”) and the clack of computer keyboards at work.

A few weeks later I reviewed the meeting notes. As with any student assignment, there was a range of competency. Some notes were 4 to 5 typed pages of detailed minutes; impressive, yet impractical for life on the wards. Others were sparse, nearly illegible paragraphs; thankfully, those were few and far between. The majority were reasonably complete yet concise descriptions of the events of the meeting, with lists of follow-up tasks and denotations regarding whose responsibility it was to see each task through and in what time frame.

Perhaps the best outcome I can imagine? Months later, when I was attending on a general pediatrics inpatient team, I invited a student to attend a multidisciplinary meeting on a patient in her care. She agreed, arrived at the meeting on time, and with pen and paper in hand. “I’ll take notes and complete the chart documentation on this meeting,” she declared. Her note was thorough, legible, and on the chart by the end of the day; tangible evidence that our session had made an impact on at least this student’s ability to provide excellent medical care.

Hospital pediatricians have the skills to be strong teachers and mentors to medical students in their pre-clerkship years. By embracing this role, we can help shape the physicians of the future, who need to value interdisciplinary work, communication, and family centeredness to reach their full potential as health care providers.

**APPENDIX STUDENT HANDOUT**

Case Authors: Sandy Gramlich (Social Worker), Lisa Lemieux (Pediatrician), Sheena Mainland (Clinical Nurse Specialist), Rebecca Patzelt (Speech/Language Pathologist), Loralea Shwed (Occupational Therapist), Kim Smyth (Pediatric Neurologist), and Leah Wetter (Physiotherapist).

Bobby Gardam is an 8-year-old boy who presented to the Alberta Children’s Hospital emergency department in mid-January with an acute loss of consciousness. He underwent workup in the emergency department for overwhelming infection, toxin ingestion, hypoglycemia, organ failure, and electrolyte abnormalities. None of these conditions was found to be the problem. He underwent head imaging, which revealed a hemorrhagic stroke affecting his left temporal, parietal, and posterior frontal lobe regions, felt to be secondary to a ruptured arteriovenous malformation.

He was sent to the PICU where he was intubated, mechanically ventilated, and
resuscitated. When he was stable, he underwent neurosurgery for clot evacuation to reduce his intracranial pressure. The surgery went well. Postoperatively, he had a seizure, so he was given antiseizure medication (Keppra). He has not had any further seizures.

Bobby was in the PICU for a total of 2 weeks. During this time, he was fed via a feeding tube into the stomach (nasogastric). Once he was extubated and continuing to show stability, he was transferred to the general pediatrics ward for ongoing care and rehabilitation. He has significant right-sided weakness affecting his arm and leg, and left-sided facial weakness affecting his speech and ability to eat.

You are a clerk rotating through at Alberta Children’s Hospital. You are assigned to take care of Bobby, so you are starting to get to know his medical needs and the needs of his family now that he has been on the general pediatrics ward for ~2 weeks. You have been invited to participate in a multidisciplinary health care team meeting to discuss his medical, rehabilitative, and social needs. You have been asked by the attending pediatrician to be present at the meeting and provide appropriate documentation of the discussion and outcomes for Bobby’s inpatient chart.

ACKNOWLEDGMENT
The author thanks Dr David Keegan for his contributions to the development of this curriculum.

REFERENCES