Medical Education
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<thead>
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320 September Heritage
Neurology Requirements At Brown

Although the “decade of the brain” has come and gone, the Warren Alpert Medical School of Brown University still does not require a rotation in neurology as a requirement for graduation. It stands alone among medical schools in New England, joining only the University of New England School of Osteopathy as an institution without that curricular requirement. The University of Vermont is increasing its required neurology rotation from three to four weeks. Students certainly have been welcomed into the fourth year neurology electives at Brown, but they need not participate. Last year 19 of 90 students took neurology electives.

Some medical schools have a third year required rotation of 4 weeks. Some require its students to take a 4th year “elective” in neurology and some make neurology merely a 2 week rotation, assigning the other part of the month to ophthalmology.

Several years ago I wrote a column for the American Parkinson’s Disease Association entitled, “Why Parkinson’s Disease Patients Should NOT Go To The Emergency Room,” which was distributed to 25,000 families. I got some irate calls from emergency medicine (EM) doctors, generally family members of people with PD who had received my column. The column was, and remains, a great service to the PD community, pointing out that the emergency department (ED) is useful for medical problems but not for problems directly due to PD. When a patient has a PD-related problem the primary neurologist or whoever is managing the patient should be called. Problems in PD are usually related to clinical fluctuations in motor function, delirium or psychosis. These are arcane to the physician who does not deal with them regularly. The ED physician is put in the difficult position of dealing with a patient whose problem requires great expertise, yet forced to do something, anything, to help the patient. Often the doctor does the wrong thing. Often the patients’ problems fluctuate: by the time they are evaluated in the ED, the patients are better and sent home.

It is uncommon for the patient to benefit from this interaction; this was the theme of my article. I stressed, of course, the utility of the ED for evaluating chest pain, cough, fever, falls, etc, but noted that PD-specific problems were rarely addressed adequately by an ED doctor.

My PD colleagues who read the column and my PD patients applauded. The patients especially, since my column was based on their reports over the course of 15 years and simply mirrored their less-than-satisfactory experiences. They continue to tell me how often they had been to the ED before they read my column and learned better.

When the ED doctors contacted me, however, they were less sanguine. How could I say that they were not adequate to the task? So before I responded, I talked to my local ED doctors, all board-certified in EM, and I learned that EM did not require a neurology rotation during residency training. Evidently most training programs, including Brown’s do, but someone could complete an EM residency without any neurology training beyond what was learned in medical school, which was not a lot. I then realized that there are medical schools, not many, but some like Brown, that do not require clinical neurology at all. I was shocked to realize, as I noted to the EM doctors who had complained, that I had perhaps misjudged the situation, and that the doctors were even less qualified than I had thought.

This is not to disrespect Emergency Medicine doctors, or their treatment. It is to point out that lack of training in a discipline leads to lack of expertise. And while it is certainly true that we can’t learn everything about everything, and that we need to prioritize training, one can hopefully believe that neurology is sufficiently important to justify clinical training for all physicians.

Brown has a great pre-clinical course in neurology. It’s recently been revamped, and represents an integrated teaching ef-

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– Joseph H. Friedman, MD

Commentaries
The Ignoble Fate of the Peppered Moth

The reasons why men and women enter the profession of medicine are almost as numerous as the numbers of medical school entrants. And it is said with some statistical justification that once these students have completed their formal education, passed their licensure examinations and finally entered the health-care arena, few ever leave medicine for alternative careers. The average graduating physician today is so deeply in debt that the fleeting thought of becoming an itinerant poet or a Zen theologist causes little more than vertiginous panic.

Yet some do leave; and while most in this small group merge into a sea of anonymity precious solely to their kith and kin, there are nonetheless a handful who have left an enduring impression upon the larger society by their non-medical accomplishments. Indeed, some are so famous that their earlier medical careers are obscured or forgotten. Certainly the names of Nostradamus, Rabelais, Marat or Clemenceau elicit no thoughts of medicine except amongst their zealous biographers. And considering Marat's lethal role in France's Reign of Terror - and his well-publicized murder by Charlotte Corday - it is hard to think of him as having once been a healer.

Then there are those physicians who, after decades of diligent medical practice, have ventured beyond medicine to pursue a hobby, and, in doing so, have left an indelible mark upon what we know about the world around us.

Such a person was Henry Bernard Davis Kettlewell (1907 – 1979). Few today remember his name but for a single series of biological experiments appearing in virtually all textbooks on evolutionary biology. And so, in the tranquility of academic circles, Kettlewell has achieved a small measure of well-deserved immortality.

Kettlewell was born in Yorkshire, England, attended Cambridge University and received his medical doctorate from St. Bartholomew's Hospital (Barts), London, in 1929. Until the onset of World War II he practiced medicine in the Surrey district. During the war, he worked fulltime in emergency medical services. In 1949 Kettlewell emigrated to South Africa, leaving the practice of clinical medicine to pursue a lifelong interest in insects, particularly butterflies and moths (lepidopterology).

Following a series of successful investigations regarding suppression of predatory locusts in the southern tier of Africa, particularly Congo and Mozambique, Kettlewell returned to Oxford as the recipient of a research grant to explore the genetics of peppered moths (*Biston betularia*). Somehow, investigations into the ecological influences upon the peppered moth do not stir the souls or the passions of many humans, particularly those who write science stories for daily newspapers. So for the next few years Kettlewell pursued his inquiries on the lives of the English peppered moth unmolested or distracted by journalistic scrutiny.

Kettlewell chose the Deanend forest neighboring upon the industrial city of Birmingham, England, as the base for his investigations. In consecutive censuses of the resident moth population undertaken in the three decades beginning in 1952, he noticed a region-based concentration for the dark-colored pepper moths. Thus, in the moth populations in forest groves closest to the city (and thus closest to its air-polluting factories) the dominant body coloring of the moths was dark gray or black (a phenomenon he called melanism.) In samplings of moths living on groves more distantly situated from the urban factories, the dominant body color was a pale tan. Kettlewell was aware, too, that the resident moths of the Birmingham region, prior to the 18th Century (and the onset of major industrialization), had been largely pale. He verified the relationship between survival of peppered moths and the color of their wings by releasing large numbers of peppered moths into aviary cages filled with insectivorous birds. The birds ignored dark-colored moths alighting upon dark surfaces and light-colored moths alighting upon light-colored surfaces; but if a dark-colored moth alighted upon a light-colored surface (or vice versa) the birds promptly consumed them.

Kettlewell speculated that the gradually darkening of the moths (melanism) coincided with the effects of the 18th Century Industrial Revolution upon the atmospheric pollution surrounding Birmingham and, concurrently, the gradual darkening of the buildings and tree trunks neighboring upon the coal-burning factories. Thus moths inheriting dark-colored wings had a greater survival likelihood nearer the factories while those inheriting light-colored wings had a greater chance of surviving (and hence producing more moths with light-colored wings in the next generation) in forests remote from the coal-burning factories.

Kettlewell's observations and experimental verification provided yet another example of Darwin's theory that those biological variants best capable of adapting to a changing ecological environment would be better represented in the next generation - the survival of the fittest, the core premise of his theory of evolution. Of course, if by some ecological magic the Birmingham factories should all revert to energy-generation free of any air pollution, then within a generation or two the surfaces of Birmingham's trees and buildings would become lighter; and shortly thereafter the light-colored moths would again predominate.

Kettlewell died in 1957, to his final days an unduly modest man. He cleaved to his anonymity with the tenacity of a barnacle determined, to the end, to have a private rendezvous with obscurity.

– STANLEY M. ARONSON, MD

Disclosure of Financial Interests
Stanley M. Aronson, MD, has no financial interests to disclose.

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On May 24, 2009, 90 men and women received the Doctor of Medicine degree from The Warren Alpert Medical School of Brown University, representing the 35th class of physicians graduated from our institution since 1975. Of the 2,554 physician graduates of previous classes, approximately 328 (13%) are licensed to practice in Rhode Island. The purpose of this article is to introduce the graduates of the MD Class of 2009 to the physician community in our state.

A PORTRAIT OF THE CLASS OF 2009

Of the 90 graduates, fifty-four were women (59%) and 36 were men (40%). Regarding the class’s racial/ethnic composition, 13% are members of minority groups underrepresented in medicine (5 African American and 7 Hispanic students) as defined by the Association of American Medical Colleges (AAMC). The proportion of students from underrepresented groups among all students at the Medical School at present (combined for the four years) is 17%, although this determination does not take into account the 40 students (10%) in the current medical student population who chose “prefer not to respond” when asked to indicate their ethnicity on their original medical school application.

Eleven of our most recent graduates are residents of Rhode Island. Those graduates came from six different communities: two students from East Greenwich, three from Cumberland, three from Cranston, and one student each from Central Falls, Lincoln, and Providence. Their high schools also reflect this diversity: Cranston High School West, Saint Raphael Academy, The Hotchkiss School in Litchfield, Connecticut, Moses Brown, Bishop Feehan, and Cumberland, East Greenwich, and North Providence high schools.

The largest proportion of students in the MD Class of 2009 comes from the Program in Liberal Medical Education (PLME): 40 graduates (44%).

This medical school has long had admissions agreements with postbaccalaureate premedical programs at Bryn Mawr College, Goucher College, and Columbia University.

<table>
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<th>Specialty</th>
<th>Number</th>
<th>Percentage</th>
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<td>Anesthesiology</td>
<td>1</td>
<td>1.1%</td>
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<tr>
<td>Dermatology</td>
<td>2</td>
<td>2.3%</td>
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<tr>
<td>Emergency Medicine</td>
<td>6</td>
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<td>Family Medicine</td>
<td>4</td>
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<td>Internal Medicine</td>
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<td>Obstetrics/Gynecology</td>
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</tr>
<tr>
<td>Ophthalmology</td>
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<td>3.4%</td>
</tr>
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<td>Orthopaedic Surgery</td>
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<td>3.4%</td>
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<td>Otolaryngology</td>
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<td>Pediatrics</td>
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<tr>
<td>Radiation Oncology</td>
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<tr>
<td>Surgery</td>
<td>4</td>
<td>4.6%</td>
</tr>
<tr>
<td>Surgery-Pediatrics</td>
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<td>3.4%</td>
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<tr>
<td>Urology</td>
<td>2</td>
<td>2.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>87</td>
<td>100%</td>
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</table>

Table 1. PGY-1 residency disciplines pursued by members of the MD Class of 2009.

<table>
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<td>Radiology</td>
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<td>5.7</td>
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<td>Surgery</td>
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<tr>
<td>Surgery-Pediatrics</td>
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<td>Urology</td>
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<td>2.3</td>
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<tr>
<td><strong>Total</strong></td>
<td>87</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2. Specialty Choices for Brown Medical School Classes of 2004 - 2009

- **Table 1.** PGY-1 residency disciplines pursued by members of the MD Class of 2009.
- **Table 2.** Specialty Choices for Brown Medical School Classes of 2004 - 2009.
Students from these programs decided upon a career in medicine only after completing college. Typically, they have been engaged in other careers for several years following college. The goals in establishing this admission route were to maintain a rich diversity in the student body by admitting students who had different academic and life experiences. Twelve members (13%) of the class were post baccalaureate students, seven from Bryn Mawr, two from Goucher and three from Columbia.

Sixteen students were admitted through the Brown–Dartmouth Medical Education Program in which students spend their first two years of medical school at Dartmouth, and transfer to Brown for the final two years.

Among the remainder of the class, seven students were part of the Early Identification Program (EIP), one from Tougaloo College, four from Providence College, and two students from the University of Rhode Island. EIP students are offered provisional admission to the medical school during their sophomore year at their respective undergraduate colleges. Of the remaining graduates, one entered medical school through the MD/PhD program, two through advanced transfer and two through the Brown Avenue route by which Brown undergraduate students have been brought to the medical school.

The Class of 2009 included ten graduates who entered the medical program via the standard pre-med admissions route. This

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<td>Salma Faghri</td>
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<td>University of Alabama Medical Center</td>
<td>University of Alabama</td>
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<td>University of California-San Francisco</td>
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Table 3. The Warren Alpert Medical School of Brown University MD Class of 2009
The most common undergraduate major (44%) was biology (including subdisciplines such as biochemistry, neuroscience, and microbiology). Taken together, science majors (including math, engineering and psychology) accounted for 69% of all majors, while 20% of majors were in the humanities and 11% in the social sciences. Among the humanities majors, history concentrations were the most common choice while psychology was the most frequent choice among those majoring in the social sciences.

**WHERE THEY ARE GOING**

Among the disciplines selected for PGY-1 positions by our graduates (Table 1), internal medicine remained the most frequently selected specialty with 26 students representing the combination of categorical, primary care and preliminary internal medicine. Pediatrics was the sec-

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<td></td>
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<tr>
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<td>New York University</td>
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<tr>
<td>Amy McIntyre</td>
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<td>Surgery-Prelim</td>
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<tr>
<td>Neel Shah</td>
<td>Brigham &amp; Women’s Hospital</td>
<td>Harvard Medical School</td>
<td>Obstetrics-Gynecology</td>
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Table 3. The Warren Alpert Medical School of Brown University MD Class of 2009

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<th>Name</th>
<th>Residency Program</th>
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<tr>
<td>Jesse Soodalter</td>
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<td>Kristen Spalding</td>
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<td>Jonathan Strutt</td>
<td>St. Louis Children's Hospital</td>
<td>Washington University</td>
<td>Pediatrics</td>
</tr>
<tr>
<td>Rosalyn Su</td>
<td>NYU School of Medicine</td>
<td>NYU School of Medicine</td>
<td>Pediatrics</td>
</tr>
<tr>
<td>Anil Taner</td>
<td>University of Hawaii</td>
<td>University of Hawaii</td>
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<tr>
<td></td>
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<td>Radiology</td>
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<tr>
<td>Stephanie Tecun</td>
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<td>Medicine-Pediatrics</td>
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<tr>
<td>Mari Tokita</td>
<td>University of Hawaii</td>
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<tr>
<td></td>
<td>University of Washington Affiliated Hospitals</td>
<td>University of Washington</td>
<td>Radiation-Oncology</td>
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<tr>
<td>Beth Toste</td>
<td>McGaw Medical Center</td>
<td>Northwestern University</td>
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<tr>
<td>James Town</td>
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<tr>
<td>Vicki Tsai</td>
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<td>George Turini</td>
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<td>Marcella Villa</td>
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<td>Clifford Voigt</td>
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<td>Leslie Wei</td>
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<td>Presbyterian-St. Luke's Medical Center</td>
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<tr>
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<td>Teddy Youn</td>
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<tr>
<td>Jessica Zerillo</td>
<td>Beth Israel Deaconess Medical Center</td>
<td>Harvard Medical School</td>
<td>Medicine</td>
</tr>
</tbody>
</table>

Additional analysis continues.

Table 3 lists the Class of 2009 graduates and their residency training programs. Of the 90 graduates, 87 are entering residency training next year. Three are delaying their residencies. Twelve graduates matched with Brown-affiliated residency programs and will be staying in Rhode Island. California is most popular destination state, soon to become the home for 13 graduates. New York was the third most popular locale with 10 graduates locating there. Of note, 6 graduates will be moving into Harvard-affiliated residency programs, 4 will be going to Yale affiliates, 8 will be training at programs affiliated with the University of California-San Francisco and 2 will be going to Stanford.

Consistent with recent trends, the geographic destinations of our graduates pursuing PGY-1 training (Table 4) shows that a high proportion will pursue training in New England, New York, and California. Approximately half of the Class of 2009 will stay in the Northeast and 20% will go to the West Coast.
CONCLUSION

As has been true in previous years, the proportion of Warren Alpert Medical School graduates entering primary care residencies approximates the national data for all US medical school seniors. Residency choices of our graduates indicate a continued trend towards highly competitive specialties. Finally, our graduates continue to compete successfully for highly competitive graduate training programs.

REFERENCES

1. National Resident Matching Program Results and Data, 2008 Main Residency Match, Table 10: U.S. Seniors Matched to PGY-1 Positions by Specialty, April 2008.

Philip A. Gruppuso, MD, is Associate Dean for Medical Education and Professor of Pediatrics.
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Disclosure of Financial Interests
The authors have no financial interests to disclose.

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Medical Student Education In Refugee Health and the Concept of a Medical Home

Carol Lewis, MD

When refugees resettle in the United States, their health burdens are many and often unusual, their stories are unique and compelling and their access to health care difficult. The evolution of the Hasbro Hospital Refugee Health Clinic has not only addressed refugee health, but has provided an opportunity for medical student education. In the Refugee Health Clinic, medical students can combine their medical knowledge and clinical skills, while putting advocacy at center stage.

Who are refugees?

Refugees are foreign-born people who cannot return to their home or last residence for fear of persecution. This persecution may be due to race, ethnicity, nationality, political beliefs, or membership in a particular social or religious group. Refugees usually come from nations where conflict, war, and genocide are extreme. They flee from violence, leaving family, belongings, and legal and medical documents behind. The United Nations High Commissioner for Refugees (UNHCR) awards refugee status after an identifiable group has been displaced from their home or country of origin. Generally refugees flee to neighboring countries.

UNHCR estimates that there are 31.7 million “people of concern” worldwide. This number includes 16 million refugees, of whom approximately half are children. This number does not reflect those refugees who are internally displaced. When they are unable to return to their country of origin, refugees seek resettlement in a third country, usually the United States, Canada, Western Europe or Australia. Strikingly, less than 1% of refugees ever resettle in a third country. Those fortunate enough to navigate the resettlement application process, adjudicated in the US by the Citizenship and Immigration Service, are interviewed. They have an overseas medical exam and receive cultural orientation. Panel Physicians, designated by the US State Department, perform medical examinations to identify Class A conditions, such as active TB, HIV, drug abuse and some mental health disorders, which are potential barriers to resettlement. These overseas examinations and cultural orientation are often cursory.

The United States, under the direction of the State Department, invites over 70,000 individuals annually for resettlement. The countries of origin depend on the geography of political strife. The International Institute of Rhode Island reports that over 1400 refugees have resettled in Rhode Island since the year 2000; approximately half have been children. Between 2003 and 2006 a majority of the refugee children were from Liberia. More recently, Rhode Island has welcomed refugees from Burma, Burundi, Central African Republic, Eritrea, Ethiopia, Haiti, Iran, Laos, Liberia, Rwanda, Somalia, and Togo. This last year, we have welcomed increasing numbers from Iraq and Nepal.

Refugee Health Burdens and Barriers to Health Care

Research from pediatric refugee populations in other states has found high rates of malnutrition, lead poisoning, anemia, mental health problems, oral health problems and infectious disease. Similar maladies have been identified in the Rhode Island refugee population. Approximately 80 refugee children arrive in Rhode Island per year. They may suffer from lead poisoning, Hepatitis B, HIV, latent tuberculosis infection, pathogenic parasites and malaria. (Table I). Malnutrition is common, as are iron and Vitamin D deficiency. We have cared for children with typhoid fever, congenital syphilis and miliary tuberculosis. Many children have never received dental care. Mental health issues are pervasive, including PTSD, depression and anxiety.

The linguistic barriers are obvious given the unfamiliarity of many refugees’ languages. Recent refugees speak Kirundi, Krahm, Kunama, Arabic, Somali, Mai-Mai, Swahili, Kinyarwanda, Nepali, Kissi and Mandingo. Trained medical interpreters for these languages are scarce. Cultural barriers exist, particularly due to patients’ unfamiliarity with our primary preventive care and mental health care systems. Our health care system is difficult to navigate, especially for those with special needs.

Refugees have left possessions, legal and medical documents, family, and basic social and cultural supports. They arrive with nothing. Often they do not have an anchor family or community in Rhode Island. Nevertheless, they exhibit resilience, resourcefulness and determination.

Development of a Medical Home for Refugee Children and Their Families

The Hasbro Children’s Hospital Refugee Health Clinic was established in October 2007 to address the health care needs of our newest refugee families as


<table>
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<tr>
<th>CONDITION</th>
<th>INCIDENCE AMONG R.I. REFUGEE CHILDREN</th>
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<tr>
<td>HIV Positive</td>
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<tr>
<td>Positive RPR</td>
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<tr>
<td>Malaria</td>
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<td>Positive Hepatitis B Surface Antigen</td>
<td>10%</td>
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<tr>
<td>Stool Ova and Parasites</td>
<td>17%</td>
</tr>
<tr>
<td>Lead Intoxication</td>
<td>25%</td>
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<tr>
<td>Positive PPD</td>
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VOLUME 92     NO. 9     SEPTEMBER 2009
well as provide ongoing care that is comprehensive, family-centered and culturally appropriate, in coordination with other community providers.

The Medical Home concept has gained favor as an alternative to the more traditional model of seeking health care for acute care or exacerbation of chronic problems. Introduced in 1967 by the American Academy of Pediatrics (AAP) as a means of storing medical records, the concept was expanded in 2002 to include these characteristics: accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective. It has proven a useful, cost-saving model for children with other special health care needs. The American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Physicians, and the American Osteopathic Association issued the “Joint Principle of the Patient-Centered Medical Home” in 2007. It presents the principles and support for the Patient-Center Medical Home approach to health care. The American Academy of Medical Colleges has also given a preliminary endorsement to this approach.

The Hasbro Hospital Refugee Health Medical Home model consists of three major components.

- Development of the Refugee Health Clinic, which provides timely intake exams and addresses specific medical needs of refugee children, including screening tests.
- Development of a coalition of providers who provide medical and community services.
- Ongoing needs assessment with information gleaned from the refugee community and their interpreters to improve access to health care.

The Refugee Health Clinic offers intake evaluations within 30 days of the child’s arrival to the United States. The specific needs of the population are assessed at this visit. The subsequent visit, usually one month later, occurs in the pediatric clinic where the children are “mainstreamed” into the general pediatric population; the same provider who performed their intake exam continues to see the children. This provides continuity for the patients and allows for one provider to coordinate their care. This approach also allows us to more easily develop a tracking system to identify needs of the different refugee populations.

Approximately 80 refugee children arrive in Rhode Island per year.

The coalition of providers includes: The International Institute of Rhode Island, RI Department of Health, Samuels Sinclair Dental Center, psychologists from Brown University and Rhode Island College, The Providence Public School Department, Family Services of Rhode Island, Rhode Island Housing, RIH Med/Peds Clinic, Neighborhood Health Plan of RI, Interpreter Services, Alpert Medical School of Brown University students, and Brown University Pediatric Residents and Brown University Medical/Pediatric Residents. This coalition has given voice to the needs of the population and provided access to care in this community.

A targeted needs assessment was completed through focus groups within the community, and with interpreters speaking Kirundi, Iraqi Arabic, Swahili, Krahin as well as a group of English-speaking refugee adolescents. Three themes emerged: first, we need interpreters who can also navigate through our complex health care system. Second, patients must trust their providers. Initially patients trust their interpreters; but over time this trust can be transposed to the health care providers. Third, patients felt an overwhelming gratitude to those who support their health and transition to their new community.

Participation of Medical Students from Alpert Medical School

The Warren Alpert Medical School has a reputation for enrolling students who are passionate, dedicated to their life-long endeavor as physicians. Many have a deep compassion for the community, both locally and globally. The Hasbro Children’s Hospital Refugee Clinic has afforded some of them the opportunity to experience health delivery via the Medical Home Model. AMS students have participated in the union of Refugee Health and the Medical Home Model in three venues.

- The Refugee Health Longitudinal Clerkship. This builds on the required fourth year Longitudinal Ambulatory Clerkship. Each month in the Refugee Health clinic, the student participates in refugee intake examinations. Subsequently, the student follows up with these same patients in their regularly scheduled pediatric longitudinal clinic. The students integrate these refugee families into their general pediatric patient panel. They also have the opportunity to work with the Refugee Health Coalition of providers. They experience coalition-building and work across all elements of the health care system and community agencies.
- Students have been invited to participate in the Refugee Health Promoter Series. This curriculum for refugee interpreters is designed to arm them with basic health information to function as health promoters in their communities. We have recruited first year medical students, paired with pediatric attendings, and Pediatric or Medicine/Pediatric residents to present a topic to the refugee interpreters (e.g., lead, nutrition, oral health, women’s health, STI prevention, mental health, health literacy, infectious diseases, immunizations and injury prevention). Students are encouraged to “shadow” a provider in the refugee clinic.
- During their Community Health Clerkship, students have the opportunity to develop educational materials or presentations. Both are provided directly to the refugee community. This work is undertaken in collaboration with the International Institute, the refugee resettlement agency. The student is encouraged to observe how this information is pertinent to our direct patient care by participating in the Refugee Health Clinic.
We believe that this project not only ensures good medical care for a marginalized population but also affirms the Medical Home Model as an effective form of medical delivery. In the process, it helps to train a new generation of doctors for whom the ability to treat patients across all cultural barriers will increasingly be a vital skill.

REFERENCES


Carol Lewis, MD, is Assistant Professor of Pediatrics (Clinical) at the Warren Alpert Medical School of Brown University, a member of the Division of Ambulatory Pediatrics at Hasbro Children’s Hospital, and director of the Refugee Health Clinic.

Disclosure of Financial Interests

The author has no financial interests to disclose.

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A Risk Management CME Presentation
Presented by
NORCAL Mutual Insurance Company

A jointly-sponsored CME activity with the Rhode Island Medical Society

Save the Date: October 3, 2009
Breakfast: 8:00 a.m.
CME: 9:00 a.m. – 12:00 p.m.

Location: Radisson Airport Hotel in Warwick, RI

“Pain Management for Primary Care” – Strategies and Resources for Improving Pain Management and Reducing Risk

Featured Speakers:

Frederick W. Burgess, MD
Clinical Associate Professor of Surgery (Anesthesiology)
Brown University School of Medicine

Frank Connor, Esq.
Taylor Duane Barton & Gillman, LLC

Diane Post, MA
Risk Management Specialist/
NORCAL Mutual Insurance Company

Agenda and learning objectives to follow.
Please RSVP by September 26 to Sarah Stevens at RIMS: (401) 331-3207 or ssstevens@rimed.org.
Redesigning the Clinical Curriculum at the Warren Alpert Medical School of Brown University

Jeffrey Borkan, MD, PhD, Edward Feldmann, MD, Richard Dollase, EdD, and Philip A. Gruppuso, MD

The Warren Alpert Medical School is in the midst of a curriculum redesign. This process started in 2007 with the implementation of a redesigned pre-clerkship curriculum for Years 1 and 2. The purpose of this report is to articulate the principles, process and overall design aspects of the next phase of the redesign: a new curriculum to replace the traditional content of Years 3 and 4.

Since the Flexner Report (1910), the final two years of medical school have focused on clinical work in teaching hospitals. Students are expected to finely tune assessment skills such as history taking and physical examination, to integrate medical knowledge into patient care, and to master sound clinical decision-making. In addition, other tasks have been added through the decades: students must become competent in areas ranging from medical ethics to the application of technology. A professional, patient-centered approach to patient care, including attitudes that relate to potential conflicts of interest and cultural diversity, must be instilled.

US medical school curricula continually undergo redesign. Proposals to reform US medical education over most of the last 100 years have articulated a particularly social vision of medicine, in which medical schools are seen as serving society. The redesign process at the Warren Alpert Medical School is no different. It takes place during a period of turmoil in our healthcare system. Both the inpatient and outpatient settings are changing in ways that challenge their suitability as training sites. Examples range from the marked decrease in many routine pediatric and surgical inpatient admissions to the shift of diagnosis and initiation of treatment from the wards to the emergency department and the ambulatory settings. Such alterations pose threats to the longstanding status quo, challenge assumptions regarding the clinical training of medical students, and suggest the need for searches for alternative approaches and methods.

At the start of the process, the Medical Curriculum Committee (MDCC), under the direction of the Dean of Medicine and Biological Sciences and the leadership of the Associate Dean of Medicine for Medical Education, entered into an intense discussion of the goals, nature and implementation of a new clinical curriculum. The subsequent White Paper on curriculum redesign, a work in progress, is the chief source of the information in this report.

**Why Undertake a Redesign of the Clinical Curriculum at AMS?**

The decision to redesign the clinical curriculum is based on multiple factors, including:

**Changes in the Effectiveness of the Clinical Learning Environment**

The changing face of medical care has brought to the fore areas of emphasis that have not been stressed in traditional clinical curricula; i.e., chronic disease management, health promotion and preventative medicine, geriatrics, palliative care and health policy. The traditional clinical curriculum has been inpatient-centric, disease-oriented, and procedure-oriented. While focusing on evidence-based medicine, traditional clerkships often ignore the delivery of primary care and the substantial proportion of specialty medicine taking place in the outpatient setting.

The existing Brown clinical curriculum in Years 3 and 4 is built around a clerkship model that depends on the inpatient setting as a learning venue and the “apprenticeship model” in which learning requires direct student involvement with patients.

Threats to this educational model have emerged; e.g.,

- Lower inpatient censuses from shortened length of hospital stays
- Shifts from inpatient to outpatient settings for many conditions and procedures
- Extensive emergency department diagnostic evaluations that may limit the ability of clerkship students to participate in the diagnostic evaluation of and decision-making for acutely ill patients
- Restrictions on the inpatient and outpatient faculty due to the increased pressure for greater productivity and tighter financial bottom lines
- Limited longitudinal experiences in both the inpatient and outpatient settings
- Electronic modalities (medical record, ordering systems) that can disenfranchise the student if not designed with educational needs in mind.

**Creating a more Seamless Four Year Curriculum will Facilitate Greater Coordination, Longitudinal Programs and Planning, and Reduce both Gaps and Redundancies**

Though the reform of Years 1 and 2 and the implementation of a redesigned pre-clerkship curriculum have already had desirable results, the existing curriculum in Years 3 and 4 is also built around a traditional division between preclinical and clinical experiences that inhibits coordination and longitudinal planning. The divide between preclinical and clinical training dates back to the Flexner Report. This approach was adopted by Brown when the Medical School was established in the 1960s. Such divisions have impeded curricular integration and coordination.

This redesign will allow consideration of educational goals and programs with greater continuity between the “pre-clinical” and “clinical” curricula. Longitudinal planning and programs will allow teaching to match more closely the educational and developmental needs of students. The redesign process is also intended to address gaps and reduce redundancies in the curriculum. Areas of medical science that are
presently underrepresented in the existing clinical curriculum include nutrition science, genetics and contemporary clinical pharmacology.

Promoting a Patient-Centered Approach

A redesign can foster in medical students a number of “patient-centered” attributes; e.g., a holistic view of patients and patient care; a deliberate, thoughtful approach to the application of technology and therapies that takes cost into consideration; the ability to incorporate knowledge and the extraordinary access to this knowledge into the care of the individual patient; the ability to place the care of the patient into a population-based and societal context.

Meeting the needs of a Changing Medical School

The new curriculum will be launched prior to the opening of a new medical education facility (projected for August 2011).\(^6\) Its design will allow for an increase from the present 96 students per year to an eventual class size of 120 students. The new building and advising systems will incorporate a “learning communities” model, another change that will inform curriculum decisions.

Changes in the National Context of Medical Education and Oversight

As is the case for all curriculum decisions, the MDCC must consider the evolving standards of our accrediting body, the Liaison Committee on Medical Education (LCME),\(^7,8\) as well as the anticipated modifications in the configuration of the Steps 1 and 2 United States Medical Licensing Examination (USMLE).\(^8\) Although the timing and nature of these changes are uncertain, it is very likely that a new Gateway 1 examination, a comprehensive basic science/clinical science examination, will be introduced in the next decade.

Finally, there has been a growing discontent around the US with the generally loosely structured fourth year of medical school training,\(^9\) with “pre-residency syndrome,” characterized by students’ excessive preoccupation with gaining their “first choice” graduate medical education position.\(^10\)

Goals of the Redesigned Curriculum

At the Warren Alpert Medical School, the overarching goal for the redesigned curriculum is to prepare students to meet the needs of their patients, families, and communities and stand out as physician leaders during the training and careers that follow. We also believe that the new curriculum should build on the Brown tradition of liberal education, self-directed learning, and excellence in medical education. The aim is to provide the experiences, knowledge and skills that are deemed so important that every Brown medical student should have them prior to graduation, irrespective of their individual trajectory. But the curriculum should also be sufficiently flexible to enable students to self-direct their post-residency learning and career goals.

The MDCC articulated qualities that we aspire to imbue in our graduates; specifically,

- The ability to function as self-directed life-long learners, contributing to advances in medical knowledge, therapeutics and technology, and able to adapt advances in healthcare to the interests of their patients and communities
- The capacity to be fully informed participants in assuring high quality health care in their practices, institutions and communities
- The commitment to be ethical, socially responsible physicians and leaders in all aspect of their work

Principles to be Incorporated into the New Curriculum

Although the redesign is in its early stages, the MDCC articulated several guiding principles.

- We should meet the needs of students with a variety of career goals.
- We should ensure coordination, integration, and continuity between educational experiences throughout the four years, providing the right experience at the correct time in the best setting. Clinical teaching and assessment should form a continuum from Year 1 through Year 4. This will require greater coordination of all elements of the curriculum and can be accomplished in several areas.
- The curriculum should be structured in evolutionary developmental ladders in which each step should prepare students for ones that follow. Just as knowledge of basic histology, biochemistry, and cell biology allows students to access the complexities of pathophysiology, Doctoring in the pre-clerkship years\(^11\) prepares students for clerkships; clerkships prepare students for sub-internships and electives; subinternship responsibilities and a planned “capstone” experience will prepare students for internship and residency.
- We should promote high-quality learning environments in the clinical setting. This will involve promoting the relevance and active participation of students on clinical services and attention to setting, preparation, and faculty development.
- Students should have the opportunity to explore and master emerging technologies for information management, including the electronic medical record, computer simulation and web-based resources.
- The redesign process should be sufficiently flexible and inclusive to take advantage of innovations that are not apparent at the start of the process.

Preliminary Design: Aspects of the New Curriculum

An Overarching Curricular Theme

Given the context of healthcare reform, a focus for the redesign has been proposed: Healthcare Delivery. This focus will incorporate several areas that are germane to the education of our students, such as:

- Application of fundamental clinical skills
- The judicious application of tech-
ology and therapeutic innovations
• The financing of healthcare and access to healthcare
• Medical informatics
• Quality improvement, patient safety and teamwork

Year 3, Core Competencies, the Clinical Knowledge Base and the Core Clerkships

At present, the required core clerkships represent 50 weeks of instruction that students complete during the entirety of Year 3 plus the first half of Year 4. The MDCC has committed to a reconfiguration of core requirements in which the core clerkships in the LCME-required disciplines (medicine, surgery, pediatrics, ob/gyn, psychiatry and family medicine) will be completed during Year 3. To accomplish this, the MDCC expects to reduce the number of required weeks. Changes in the clinical setting (such as the initial assessment of most inpatients in the emergency room) will also be taken into account in designing the core clerkship experiences. Such modifications will also need to take into account the planned growth of the student body.

Year 4, Focused Competencies and Formulation of a Fourth Year Educational Plan

The process of choosing a career path integrates a multiplicity of aptitudes, interests, and experiences. The new curriculum will facilitate this process, first by exposing students to the core rotations during their third year, then by providing individual counseling prior to the start of Year 4. Improvements in career mentoring in the fourth year have been shown to be effective and increase overall student satisfaction. At Brown, such counseling will occur in the context of the planned learning communities.

This proposal for students to formulate an educational plan presupposes that we will strive for greater rigor in Year 4, something that has been sought by only a select few medical schools. Such an approach also presumes that a student’s career focus will help determine the Year 4 requirements and will vary from student to student. For example, students interested in primary care might include more extended clinical experience in orthopedics and dermatology, while students considering surgery or orthopedics path might consider further anatomy or pathology. Career paths will be defined as areas of cross-disciplinary emphasis, with structured guidance and expectations, as well as room for clinical research.

Expansion of Doctoring into Years 3 and 4

The Doctoring course has been largely responsible for the ability of the preclinical curriculum to be comprehensive in its approach to preparing students for their clinical years. The MDCC considers that an adequately designed Doctoring program in the clinical years could allow for the in-depth presentation of cross-disciplinary and integrative topics. These may include such topics as the use of technology in clinical medicine; advanced communication and physical examination skills; death and dying/palliative care; nutrition; genetics; working with teams; and sexuality. In addition, the Doctoring program will include ample time for “intensives” to prepare students for clerkships, and later for internships. Although at this time, many specifics of the 4-year Doctoring curriculum are uncertain, the MDCC considers such a comprehensive and coordinated approach as the most effective way to assure inclusion of cross-disciplinary areas essential to any medical school graduate.

SUMMARY

The proposed clinical curriculum in Years 3 and 4 provides the opportunity to complete the process begun with the reform of the pre-clerkship curriculum in 2007. The redesign should produce an educational process which not only more adequately prepares students for the future, but helps produce leaders in multiple fields of medicine and re-establishes Brown as an innovator in medical education.

ACKNOWLEDGEMENT

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The authors have no financial interests to disclose.

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Physician Intervention For Intimate Partner Violence
Sonia Aneja, MD, Amy S Gottlieb, MD, and Edward Feller, MD

In the United States, as many as one in four women will be physically assaulted or raped by a current or past partner or date during her lifetime. Violence can be any pattern of psychological, economic, verbal, physical, or sexual abuse, including sexual coercion. The vast majority of victims are women.

The impact of Intimate Partner Violence (IPV) on women is far-reaching. The most devastating consequences are serious injury and death. Beyond this, women exposed to IPV face a myriad of co-morbidities such as depression, anxiety, and post traumatic stress disorder. IPV has been associated with increased incidence of substance abuse and utilization of substance abuse resources. Victims are more likely to have somatic complaints, such as abdominal pain, headaches, musculoskeletal discomfort and chronic pain syndromes.

IPV places a burden on the health care system. Women in abusive relationships are more likely to utilize medical services and to access out-patient care, mental health and emergency services. It has been estimated that in the United States, IPV results in the expenditure of $5.8 billion annually with $4.1 billion for direct medical and mental health care.

Screening for IPV is a first step in addressing this epidemic. The American College of Obstetrics and Gynecology, the American Medical Association, and the Academy of Family Physicians, endorse routine screening. Data indicate that patients also support regular IPV screening. Nevertheless, the rate of screening remains around 10%. Although physicians are encouraged and even mandated to screen for IPV, limited office-based resources exist to address the needs of women who screen positive. Lack of time, training, reimbursement or infrastructure are major barriers to physician screening.

INTERVENTION: IPV DESK REFERENCE

We propose a step-by-step protocol for physicians to implement when patients disclose a history of IPV. This protocol is created through a literature review of qualitative studies and primary interviews conducted with non-physician health professionals in the Rhode Island community who work with victims of partner violence. This protocol, including screening questions for IPV, was formatted as a desk reference to be distributed to primary care physicians in RI. (Table 1) We hypothesize that this resource will increase screening and detection rates of IPV by addressing the sense of “powerlessness” that many physicians may feel when faced with possible victims of IPV. Ultimately, the goal is to empower both physicians and patients to optimize resources and improve health outcomes.

SCREENING

Patient barriers to universal screening include the social stigma surrounding IPV, cultural and language barriers, past failures with the medical and legal systems, shame, denial, fear of losing custody of children, economic hardship and desire to protect the perpetrator.

Physician barriers may include lack of training in screening for IPV, time constraints, lack of compensation, and general discomfort with the issue. Some physicians may feel that they are not responsible for addressing “a social work issue.” Data suggest that many physicians feel ill-equipped to react to patients who screen positively, so they simply do not ask the questions.

Women of all racial, ethnic, socioeconomic, and educational backgrounds confront IPV, though this may not be readily apparent to victims or health care providers. Therefore, universal screening is the only effective way to screen for partner abuse. Screening must begin with a commitment to confidentiality. Provider discussions about possible IPV should begin after any accompanying partners, children, or friends are directed to leave the exam room. An initial leading question can be, “Are you in an intimate relationship? If so, do you feel safe in your relationship and at home?” The patient may or may not disclose abuse at this time. Most providers who screen for IPV stop at this point. But many victims will not disclose abuse unless they are questioned further. If the patient denies abuse, the physician should follow up with simple questions. (Table 1, Screening section) In summary, every female patient should be briefly screened. This protocol involves a general inquiry about feeling safe at home, followed selectively with specific questions about physical and sexual abuse.

APPROACH TO THE PATIENT

When a patient discloses a history of past or present IPV, a provider must first demonstrate support and empathy. Statements such as “Nobody deserves to be abused,” and “This is not your fault, you did not cause this,” and “Partner violence is wrong and illegal” are extremely helpful to women who disclose a past or current history of IPV. IPV can have a deleterious impact on self-esteem and be extremely disempowering. Supportive statements attempt to empower the patient and re-build her sense of self-worth.

It is important to assess a patient’s readiness to change her situation or leave an abusive partner. Research has shown that the Transtheoretical Model (stages of change model), which has been widely applied to smoking cessation, alcohol cessation and weight loss, can also be applied to survivors of IPV. The Transtheoretical Model addresses an individual’s readiness to change his/her behavior in five stages; precontemplation, contemplation, preparation, action and maintenance. This model recognizes that each patient’s situation is unique; to be effective, interventions need to be tailored to the individual. (Table 1, Screening, #5)

For most survivors of IPV, the process of leaving an abusive relationship is complex. Health care providers who feel frustrated when women stay in abusive relationships must understand that, in leaving, many women face social isolation, financial instability, cultural barriers, fear of retribution by the abuser and the prospect of being a single parent to their children. Health professionals should assess the victim’s stage of change, and attempt to help her reach “preparation” or “action” while recognizing that this journey can be arduous.
**SAFETY ASSESSMENT**

Partner abuse can be a medical emergency. Health care providers must act decisively when a patient discloses that she is a victim. From 1996 to 2005 the US Department of Justice estimates that homicides against women were committed by intimate partners in 30.1% of cases compared to 5.3% of homicides against men.12

Consequently, safety or risk assessment is an important part of interventions. Risk factors for serious injury and lethality include the perpetrator's access to a firearm, previous threat with a weapon, previous threats to kill the patient, and use of illicit drugs. One study indicated that having a child living in the home who is not the perpetrator's biologic child more than doubles the risk of femicide.12

A safety or risk assessment has two purposes: to help determine the risk of lethal injury and to facilitate the patient's awareness of her situation and its potential for danger. The Danger Assessment, a validated tool, can be accessed at www.dangerassessment.org. While providers may not have enough time to implement this tool in its entirety, they can utilize portions of it in their clinical practice. (See Table 1) If a provider believes that a patient is at immediate risk of serious injury or death, he/she should make this very clear to the patient. While the police should never be called without a patient's permission, this option can be discussed with the patient.

**REFERRAL AND FOLLOW-UP**

Clinicians are often the bridge between the patient and domestic violence advocacy organizations. Offering information about local agencies is one of the most powerful things that a provider can do. Raising awareness about IPV potentially helps a patient move from a place of denial and self-blame to a point where she may be ready to make a change.

In our state, the Rhode Island Coalition Against Domestic Violence oversees the six local domestic violence agencies. (Table 2) Also in Rhode Island is a 24-hour hotline called the Victims of Crime Helpline (1-800-494-8100) which patients or their providers can access. With the patient's permission, a physician may call this hotline to help her take this first step. Health care providers and patients should understand that referral to a local agency does not result in immediate shelter placement. These organizations advise clients in court advocacy and affordable housing. They will assist with shelter placement if requested by the victim. They may also provide support groups and psychological services.
After patients identified as abuse victims are informed about resources, physicians should schedule a close follow-up appointment. This gives the patient time to think about her options. In recommending follow-up, the provider is sending a clear message of support and concern. Lastly, the provider should document a disclosure of abuse or suspected abuse in the patient’s chart. The provider should state, in the patient’s own words, a description of abuse and the name of the perpetrator. If the patient has injuries as a result of IPV, these should be documented and photographed if possible. Such documentation can be extremely important if legal action is taken for protection, prosecution or child custody.

CONCLUSION

Intimate partner violence is a major public health problem that can have devastating consequences for women and their families. Every physician has a responsibility to screen female patients for IPV and take appropriate steps if a patient screens positively. Our project aims to guide physicians in a plan to assist their patients who are victims. Our hope is that this desk reference will empower physicians to screen for IPV and ultimately improve health outcomes for victims of partner violence.

REFERENCES


**Most Southeast Asian (SEA) refugees** came to Rhode Island in the 1980s. Although researchers studied their health care status, their access to care, and the clash between their traditional views and Western medical views at that time, few studies have looked at the status of Rhode Island’s refugees today.

Nationally, the poverty rate is as much as double the general population, and an estimated 60% of Hmong, 56% of Cambodian, and 52% of Laotians are linguistically isolated (all adults in the household have difficulty communicating in English). The US SEA population has the lowest breast and ovarian cancer screening rates of any US ethnic group, low levels of blood pressure and diabetes screening, and increased prevalence of complications from chronic diseases such as diabetes or stroke.

We sought to assess physician and patient barriers to health access and quality of care in Rhode Island’s SEA community, 20,000 people, through focus groups. We asked: 1) How do Southeast Asians access health care in RI? 2) If they do, what are their experiences in accessing these services? 3) If they do not, what are the barriers?

**METHODLOGY**

Semi-structured focus groups were held with Rhode Island’s Cambodian, Laotian, and Hmong communities at neighborhood centers. Men and women formed 3 separate groups. Respondents were ages 41 to 83; the mean age was 62. Two native speakers of each language facilitated and recorded data. Participants were offered light refreshments and given a $25 gift card. At each session, only facilitators and participants were present.

A convenience sample of participants was recruited by the RI Southeast Asian Coalition—an organization of leaders from each major sub-group (Cambodian, Laotian, and Hmong). Potential participants were recruited from community events at ethnic grocery stores, cultural festivals, and religious temples. Once participants agreed to participate, informed consent documents were mailed or handed to them, along with a letter describing the focus group.

Language and ethnic-specific focus group sessions were recorded, transcribed and translated. A member of the research team performed an initial review. No names or identifying information were included in the transcription.

Analysis of data was conducted independently by one researcher who derived thematic categories from the transcripts.

**RESULTS**

The 54 participants (28 men and 26 women) comprised Hmong (N= 17); Cambodian (N= 17) and Laotian (N= 20). They identified diverse barriers to healthcare. Most revolved around interpretation difficulties.

The content was divided into five general themes.

1) **Health Systems Barriers**

Participants needed caseworkers and advocacy organizations to help navigate the healthcare system. Although many had health insurance or Medicare/Medicaid, most did not understand how to use benefits. Members of the Laotian focus groups were particularly eager to relate their experiences. Several participants described being mysteriously “kicked off of Medicare” for no reason. Consequently, many felt “scared” to go to the doctor without insurance.

In addition, participants mentioned the frustrations of having only one SEA community organization in RI. Although the organization provides some services to SEAs living in Providence, many communities in other parts of the state felt isolated and believed that “they live too far to receive any help.” Members felt that a central SEA agency would help address barriers to healthcare access, especially for the elderly.

“I would be happy to hear that the state could help older people and those who cannot work, drive, or go to the doctor along.”

Transportation also impedes participants’ access to healthcare. All groups voiced concern that the elderly rely so heavily on their children, who typically work during normal clinic hours. Although SEAs know that they can ride the bus, they do not: they fear getting lost because they cannot read signs in English.

“I used to live in Washington [state] and California. Things were much better there, because there was a nurse or someone else to help me with transportation. Here, we don’t know where to go, so we stay at home sick.”

2) **Clinic/Office Interactions**

Participants unanimously felt that interaction with office staff was as important as interaction with doctors. Yet few clinics have interpreters on site.

“We need Lao people in the clinic, not just doctors. [We] need staff that can help show us resources, explain what payment plans are to me, teach me how to take my medicines, whether it’s 1 pill aspirin a day, 2 pills a day…etc.”

“Not knowing how to speak English…when you’re ill and meet the doctor, if there isn’t a Hmong-speaking person to help, you might go early at 10 am and you go a half hour early and wait and they never call your name. This is a problem.”
Participants understood the difficulty of hiring and retaining SEAs in clinics. The majority of the RI SEA healthcare workforce have low-paying positions requiring little formal education. Although employed in clerical or custodial positions, many find themselves serving as ad hoc interpreters or social workers due to the high demand for language assistance. As a result, the burnout rate is high.

“There was [a Laotian worker] at the [clinic],” explained a Laotian participant, “but she moved up…interpreters get tired of it…or worn out…so they move on to a higher position if they get a chance.”

Also, answering machine services and appointment reminders are usually given in English, which makes it difficult to make appointments, remember them or get test results.

“…if you can’t speak English, you can’t even tell them you need a translator…when they call your house to inform you of an appointment, you can’t understand what they are saying.”

3) Poor Doctor-Patient Communication

All respondents were troubled at the possible medical consequences of poor communication. Many feared that US medications or vaccines wouldn’t work because doctors didn’t understand their diseases.

Maybe, the vaccines, because we are from a different country, when we fall ill, they might not be the right vaccines to treat our illnesses…or if they do understand our illnesses, they might not have the right medicines [available]."

The clinical impact of inadequate interpreter services extends directly to the doctor-patient relationship. With very few certified interpreters, many patients rely on friends and family members to interpret. Due to the lack of specific vocabulary words in SEA languages to describe symptoms and signs, many important clinical details frequently get lost in translation.

“For example, there is generally one word that means ill, injured, hurt, sick, or pain. It is generally used to describe any kind of illness from something minute to something serious, so translation requires in-depth explanations of symptoms and scenarios for others to comprehend meaning.”

Because of this inherent complexity, an untrained friend or family member serving as an ad hoc interpreter may make crucial mistakes.

Physicians often give incomplete or inadequate explanations of how to use medications. This led many to believe that US medications are ineffective, even harmful. In all groups, participants turned to traditional healing methods.

“Tsam borun (herbs and vodka) is important if you do it right and use it right, and don’t drink a lot of cold water; better than doc medicine. If you use both, you get better faster.”

Communication difficulties also affected the physical examinations and procedures, particularly during gynecological exams. Participants in the Hmong women’s group discussed a particular male interpreter whom they were not comfortable with, but who was the only person available.

“When it comes to the woman’s part [of the physical exam], then they don’t want him to know anything about it. So they say very little to the doctor because they are not comfortable with his presence.”

4) Lack of Education On Chronic Disease and Nutrition

Participants reported diabetes, hypertension, high cholesterol, cancer, and liver disease. Although they were aware that screening and regular doctor visits are important for prevention, most found it difficult to keep appointments for every checkup.

Participants were interested in learning about diet and nutrition. They understood the relationship between diet and good health. However, when asked about receiving dietary advice, many felt that their healthcare providers did not understand their culture.

“Sticky rice…the doctor told [my dad] he can’t eat sticky rice, and my dad says ‘that is like telling a fish not to swim! I am a Laotian man; I have to eat sticky rice…”

Asked what nutrition advice they needed, participants were forthright:

Table 1: Barriers To Care

<table>
<thead>
<tr>
<th>System-based barriers</th>
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<tbody>
<tr>
<td>• Underrepresentation as leaders, decision-makers</td>
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<tr>
<td>• Care received in safety net settings</td>
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<tr>
<td>• Limited clinic hours, follow-up, phone contact</td>
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<tr>
<td>• Inadequate interpreter services, linguistic competency</td>
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<tr>
<td>• Insurance issues</td>
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<tr>
<td>• Lack of case workers or advocacy</td>
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<tr>
<td>• Poor continuity of care</td>
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<td>• Obsolete medical record systems</td>
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<tr>
<th>Physician-based barriers</th>
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<tbody>
<tr>
<td>• Linguistic discordance</td>
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<tr>
<td>• Availability and proximity of providers</td>
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<tr>
<td>• Limited time, expertise, experience with interpreters</td>
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<tr>
<td>• Referral gridlock for specialists, behavioral care</td>
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<tr>
<td>• Telephone access</td>
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<tr>
<td>• Intake logjam</td>
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<tr>
<td>• Poor cultural understanding</td>
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<table>
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<tr>
<th>Patient-based barriers</th>
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<tr>
<td>• “Safety net” care; lack of medical home</td>
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<tr>
<td>• Health literacy, linguistic issues</td>
</tr>
<tr>
<td>• Mistrust, perceived provider bias</td>
</tr>
<tr>
<td>• Cross-cultural disconnect</td>
</tr>
<tr>
<td>• Transportation, insurance issues</td>
</tr>
<tr>
<td>• No media messages in native language</td>
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<tr>
<td>• Communication barrier with MD</td>
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<tr>
<td>• Use of unproven alternative remedies</td>
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In addition, these limited-English patients do not get important health messages that appear in print, Internet, and television. Some have limited or inaccurate family health history from their parents or grandparents.

5) Cultural Barriers To Care

Participants identified diverse socio-cultural barriers, including lack of culturally appropriate care, perceived unfair treatment, provider bias on racial or ethnic grounds, and unawareness of the heterogeneity of SEA cultures.

Groups valued interpersonal relationships and interactions with their doctor. A persistent theme was the importance of family as the primary social unit and source of support and advice. Rather than consult the health care system, participants often initially sought help from family, churches, or traditional healers. Because modesty and privacy are important, participants did not readily discuss some concerns with family members, especially of the opposite gender.

**Table 2: Recommendations for Addressing Barriers**

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Interventions / solutions</th>
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<tbody>
<tr>
<td>Health services / Systems</td>
<td>• Increased access to care</td>
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<td></td>
<td>• National focus on recruiting and maintaining minority groups in health leadership positions</td>
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<td></td>
<td>• Home health agencies for SEAs</td>
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<tr>
<td>Clinic / Office Issues</td>
<td>• Native clinic workers</td>
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<tr>
<td></td>
<td>• Telephone messages in native language</td>
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<tr>
<td></td>
<td>• Technology promotion(electronic records, telemedicine, telephone interpreter services)</td>
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<tr>
<td>Doctor-Patient Miscommunication</td>
<td>• Adequate interpreter services</td>
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<td></td>
<td>• Telephone interpreters</td>
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<td></td>
<td>• Information in native language</td>
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<td>• Improving access to interpreter certification</td>
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<tr>
<td>Cultural / perceptual Barriers</td>
<td>• Cross-cultural education for health workers</td>
</tr>
<tr>
<td></td>
<td>• Recruit SEA health professionals</td>
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<tr>
<td></td>
<td>• Community outreach programs</td>
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<tr>
<td>Educational Barriers</td>
<td>• Dissemination of health education materials (e.g., community workshops, radio / TV public service announcements)</td>
</tr>
<tr>
<td></td>
<td>• Collection of race and ethnicity data to monitor outreach efforts</td>
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“We keep hearing that our nutrition and diet isn’t correct…But things like how much fats, protein, sugar to eat—we don’t understand those things. Someone needs to tell us what to do”

In addition, these limited-English patients do not get important health messages that appear in print, Internet, and television. Some have limited or inaccurate family health history from their parents or grandparents.

**DISCUSSION**

Focus groups identified the lack of interpreters and poor transportation as major barriers. A challenge specific to RI appears to be mobilizing the SEA community. Unlike states with multiple SEA advocacy organizations devoted to health and social service outreach, RI has none. Only the Socio-Economic Development Center (SEDC) has some of the cultural and linguistic resources needed to engage SEAs. Due to insufficient funding, SEDC cannot serve as a comprehensive vehicle for community outreach.

Challenges faced by SEAs in RI are amplified by the absence of a single SEA community geographic center. Instead, there are pockets of SEAs living in South Providence, Warwick, Smithfield, and Woonsocket. Because many SEAs do not have ready access to transportation, many participants often initially sought help from family, churches, or traditional healers. Because modesty and privacy are important, participants did not readily discuss some concerns with family members, especially of the opposite gender.

The lack of interpreter services contributes to adverse outcomes, including less screening and immunizations; more treatment errors; non-compliance with medication or treatment plans; missed appointments, and patient dissatisfaction. Ideally medical interpreters should be professionally trained. Family, friends, office employees or strangers recruited from waiting rooms misinterpret or omit up to half of all physicians’ questions, and are more likely to commit errors with clinical consequences. When children are present, ad hoc interpreters are likely to ignore embarrassing issues.

Others suggest that incorporating cultural values into health education and outreach programs would make SEAs more accepting of services. One strength of the SEA community is its strong cultural identity and connection to local temples. This linkage has been helpful for health outreach, particularly health screenings held at local Buddhist temples. Such partnerships between cultural and medical resources are crucial for providing the information and the trust needed for the SEA community to participate more fully in health education and prevention efforts.

Among the recommendations for improving access to healthcare are: 1) Incentives for interpreter certification in SEA languages, 2) Initiation of home health agencies and outreach to care for SEA elders, 3) Educate providers on linguistic and culturally-specific issues, 4) Broad initiatives to increase SEA representation in the medical fields, with internship opportunities for SEA youth.

**REFERENCES**

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Margret Chang completed this project as part of required work in the Community Health clerkship at Brown. This is an edited version of her report.

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Lead Psychiatrist/Medical Director Adult Services

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Upper and (old) Lower Facial (VII) Nerve Palsies On Opposite Sides

Joseph H. Friedman, MD

An 86 year-old woman suffered a left internal capsule stroke one month before these photos. She had right facial weakness along with mild right arm and leg weakness as residua. Six years earlier she had had a left sided Bell’s palsy with an excellent recovery. Photo A shows a mildly increased right palpebral fissure and mildly reduced right naso-labial fold. These findings indicate mild facial weakness on the right. In photo B, when smiling, one can see an increase in the naso-labial fold asymmetry, and contraction of the left orbicularis muscles. In photo C her left peri-orbital muscles contract as she puckers her lips, indicating synkinesis, a very common phenomenon in people who recover from a Bell’s palsy.

Upper facial weakness can usually be distinguished from a lower motor weakness by having the patient contract the frontalis muscle (raising the eyebrows). In upper motor neuron (UMN) lesions the frontalis contracts. It does not with lower motor neuron (LMN) lesions. The vast majority of Bell’s palsy cases recover very nicely but often develop synkinesis, a syndrome in which the VII nerve regenerates but one branch innervates more than one muscle, usually the mouth and eye so that smiling or lip puckering causes the eye to close and closing the eyes causes a unilateral smile. These photos show the difference between an UMN and old, or “healed” LMN VII nerve weakness.

The patient provided written informed consent to allow her photos to appear in this journal.

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Myelodysplastic Syndrome (MDS) is a bone marrow stem cell disorder, most commonly occurring in patients over 60 years old, characterized by cytopenias, bone marrow morphologic changes and cytogenetic abnormalities. Risks of MDS include infection, anemia, bleeding and transformation to Acute Myelogenous Leukemia (AML). Older adults, at higher risk, present a treatment challenge due to atypical presentation, multiple co-morbidities, and increased risk of adverse effects from treatment.

RISK FACTORS

There is a predominance of MDS in males and Caucasians. Prior treatment with chemotherapy and radiation predisposes towards MDS. Other exposures that can increase risk include tobacco, pesticides, benzenes, and heavy metals, such as mercury and lead. There is less evidence of a genetic predisposition for MDS.

SIGNs AND SYMPTOMS

The presenting symptoms are typically related to resultant cytopenias. Symptoms can include fatigue, pallor, shortness of breath, easy bruising or bleeding, manifesting as petechiae, nose or gum bleeding. Sometimes, the cytopenias of MDS can exacerbate preexisting medical conditions, especially in older patients, in whom multiple co-morbidities are likely. For example, anemia can lead to congestive heart failure exacerbations. In addition, patients can present with frequent, unexplained infections or fevers. Not uncommonly, patients may present without symptoms and incidentally discovered cytopenias on routine lab work. As in many conditions, older patients tend to present atypically, resulting often in late detection.

DIAGNOSIS

A bone marrow aspirate and biopsy are required for the diagnosis of MDS, which typically shows hypercellularity and uni-lineage or multi-lineage dysplasia. The combination of peripheral cytopenias despite a hypercellular bone marrow is the hallmark of MDS, and is a consequence of a dysfunctional bone marrow with an excessive rate of bone marrow cell apoptosis.

Bone marrow cytogenetic abnormalities are seen in 40-70% of patients with MDS and are helpful not only in characterizing and prognosticating MDS, but also in the determination of treatment options.1

CLASSIFICATION

MDS can be primary or secondary. In primary MDS, there is no specific cause. In 50% of these patients, chromosomal abnormalities can be found, typically in the form of deletions. In secondary MDS, there is usually an inciting event, such as previous exposure to chemotherapy. Chromosomal abnormalities are seen in 80% of these patients. These abnormalities are most commonly numerical (ie: hypoploidy) or structural. Secondary MDS typically carries a worse prognosis.

The World Health Organization (WHO) Classification of MDS is summarized in Table 1. The classification system primarily uses percentages of bone marrow blasts, number of ringed sideroblasts, and number of dysplastic lineages to differentiate the subtypes of MDS.2

Table 1.

<table>
<thead>
<tr>
<th>Refractory anemia</th>
<th>Erythroid dysplasia only, &lt;5% bone marrow blasts with no peripheral blasts, &lt;15% ringed sideroblasts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refractory anemia with ringed sideroblasts</td>
<td>Erythroid dysplasia only, &lt;5% bone marrow blasts with no or rare peripheral blasts, &gt;15% ringed sideroblasts</td>
</tr>
<tr>
<td>Refractory anemia with excess blasts</td>
<td>Uni-lineage or multi-lineage dysplasia, 5-19% of bone marrow cells are blasts</td>
</tr>
<tr>
<td>MDS-Unclassified</td>
<td>Cytopenias, unilineage dysplasia in granulocytes or megakaryocytes, &lt;5% bone marrow blasts with no or rare peripheral blasts</td>
</tr>
<tr>
<td>Refractory cytopenia with multilineage dysplasia</td>
<td>Bi- or pancytopenia in blood, dysplasia in &gt;10% of cells in two or more of myeloid cell lines, &lt; 5% bone marrow blasts with no or rare peripheral blasts</td>
</tr>
<tr>
<td>MDS with del(5q)</td>
<td>Anemia, platelets usually normal to increased, normal to increased megakaryocytes with hypolobulated nuclei. Isolated 5q deletion seen in cytogenetics.</td>
</tr>
</tbody>
</table>
**Prognosis**

The most widely accepted prognostic tool is the International Prognostic Scoring System, which takes into account bone marrow blast percentage, specific cytogenetic categories (good risk, intermediate risk and poor risk), and number of cytopenias to develop four risk groups. Overall survival ranges from 5.7 years in patients in the most favorable risk group (less than 5% blasts, good risk cytogenetic, and <= 1 cytopenic lineage), 3.5 years and 1.2 years in the intermediate risk groups and 0.4 years in patients in the least favorable risk group (typically greater then 10 % blasts, poor or intermediate risk cytogenetics with cytopenias).4

**TREATMENT**

Historically, supportive care has been the mainstay of treatment, and almost all patients will need supportive care periodically during their disease course. Patients who develop infections can be treated with antibiotics. Thrombocytopenia may require intermittent platelet transfusions. Patients with anemia are treated with transfusion support or supplementation with Erythropoietin (Epo). Patients who are red blood cell transfusion dependent are at risk for iron overload and its complications, such as heart failure and liver dysfunction, and may require chelation therapy.5

Erythropoietin (Epo) has been used in patients with symptomatic anemia. It is most effective when given at high doses (40,000 Units weekly). Although the time for response could be up to 26 weeks, roughly 20 to 55% of patients will respond to Epo treatment, allowing for complete elimination or a decreased need for blood transfusions. Interestingly, when Epo is used in combination with growth factors, such as GM-CSF or G-CSF, effects on hemoglobin values are synergistic.

Two new classes of agents have been incorporated into the treatment for patients with MDS. First are the DNA methyltransferase inhibitors.6 It is thought that DNA methylation plays a role in the pathogenesis of MDS. DNA methylation typically serves to deactivate genes. Tumor suppressor genes are found to be more frequently methylated in MDS compared to normal hematopoiesis. This leads to a predominance of oncogenes which may result in the phenotype of MDS. Two drugs, azacitidine and decitabine, both of which are analogs of the pyrimidine nucleoside cytidine, are DNA-hypomethylating agents. Because they decrease the amount of DNA methylation, there is an increase in the expression of these tumor suppressor genes. Cytopenias in 24-39% of patients treated with these agents improved. These agents may be especially useful in preventing the transition of MDS to AML which is hallmark by a further increase in DNA methylation.

The second class of drugs with demonstrated efficacy in MDS is immunomodulatory. Although various theories exist, the exact mechanism of action in MDS is unknown. Lenalidomide is the immunomodulatory agent which has had the most success in improving hemoglobin count in patients with MDS.7 This thalidomide analogue lacks the neurologic toxicities of thalidomide, such as neuropathy and somnolence, and has been shown to be especially effective in patients with deletion of chromosome 5q, with about two-thirds of patients becoming transfusion independent. In patients with non-5q deletion MDS, 49% of patients experience some hematologic improvement with lenalidomide.

Additionally, chemotherapy is used; however, the use is limited because patients with MDS are older and more susceptible to the side effects of chemotherapy. In patients who can tolerate it, the two situations in which chemotherapy may be used are in patients who have advanced MDS (refractory anemia with excess blasts) and in patients who have progressed to AML.

The treatment that offers the greatest chance of cure for patients with MDS is allogeneic stem cell transplantation.8 This aggressive strategy has a high rate of morbidity and mortality in older patients and therefore can be offered to only patients who can tolerate it. Elderly patients often have other comorbid medical conditions that preclude this option.

Reduced intensity transplantation (RIC) uses lower doses of chemotherapy during transplantation and carries with it lesser morbidity. Therefore, it can be offered to a larger number of older patients. However, there is still significant toxicity to RIC and it is reserved for patients with high-risk MDS who have adequate organ function, or those who have transformed to AML.9

However, for all the treatments mentioned, it is important to assess the older adult as a whole, and not entirely based upon medical co-morbidity. Functional status and level of cognitive, social and physical functioning are as important as age and medical condition when determining "prognosis" and ability to tolerate treatments. Older adults should not be automatically discounted from more aggressive treatments due to age alone.

**Conclusion**

MDS is a heterogeneous stem cell disorder that leads to significant morbidity and mortality. It commonly occurs in the older adult population. Newer treatments aimed at improving cytopenias are available; however, a majority of patients do not respond to therapy and are at risk for death from cytopenias or transformation to AML.

Elderly patients are seldom able to tolerate more aggressive treatments such as allogeneic bone marrow transplantation and thus are a population that has the most to benefit from improved treatments options and further research. However, consider functional status when determining prognosis and ability to tolerate treatment.

**REFERENCES**


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**Physician’s Lexicon**

**Epochs, Eras and Eons**

Each of the formal scientific disciplines, including medicine, possesses its own vocabulary. Some terminologies are shared as when medicine and the law overlap in the forensic sciences. Perhaps the least likely of the physical sciences to share scientific nomenclature with medicine is geology; yet even here there is some common ground in paleopathology and the Darwinian timelines.

Geologists whose timelines are more profoundly rooted than physicians’ think in terms of millions – if not billions – of years. Thus they divide the 4.35 billion years of this globe’s existence into eons, eras, periods and epochs. And the names that they have chosen for the Periods generally reflect geographic place-names rather than personages of classical mythology.

Thus, for example, the Cambrian Period is named after the Latin name for Wales [*Cambria*]; the Ordovician Period is named after a Celtic tribe of ancient Wales named the Ordovices; the Silurian Period is named after the Silures, the Brithonic people of ancient Wales; the Permian Period is named after the east Russian province of Perm; the Devonian Period is named after Devon, an English county; the Cretaceous Period is named after a Latin word, *creta*, meaning chalk; and the Jurassic Period is named after the Jura mountains in France and Switzerland.

There are a number of Greco-Roman prefixes appended to the geologic epochs that also crop up in medical nomenclature. These include the many prefixes attached to the Greek root –*cene*, meaning recent. These include: *paleo*– [Greek, meaning ancient], *proto*– [Greek, meaning first], *pleio*– [Greek, meaning more than or greater], *eco*– [Greek, meaning dawn], *oligo*– [Greek, meaning few or small], *pleisto*– [Greek, meaning the most of that which is new], and *holo*– [Greek, meaning entire or complete as in the Holocene Epoch and representing the geologic interval from 11,700 years ago to the present.] Medical terms employing these prefixes include paleoencephalon, pleiopathy, pleochromocytoma, pleocytosis, oligodendroglialoma, holocrania and holozoic.

The eons are given the following names: Hadean [about 4 billion years ago] representing the early formation of the solar system, named after the Greek word, Hades, the lower, or invisible, world. The Archaean [about 3 billion years ago], named for the Greek word meaning ancient or primitive; Proterozoic [about 2.8 billion years ago] from the Greek, meaning former or anterior, while the –*zoic* root is Greek, meaning living; and the Phanerozoic Eon [about 542 million years ago to the present] is from the Greek, meaning visible or manifest.

— Stanley M. Aronson, MD
Resettlement of Refugees From Africa and Iraq In Rhode Island: 
The Impact of Violence and Burden of Disease

Maria-Luisa Vallejo, MA, MEd., MPH, Peter Simon, MD, MPH, and Jiachen Zhou

The Office of Minority Health at the Rhode Island Department of Health formally initiated the Refugee Health Program (RHP) in August 2004. The goal is to ensure that refugees and asylees enter into a comprehensive system of care that responds to their unique health care needs by addressing three main components: coordination of care, education and training, and surveillance and epidemiology.

Refugees are provided only eight months of insurance via Medicaid. No medical coverage is provided after they attain legal status, which takes approximately one year after their arrival in the United States. Timely medical care is an integral part of the refugee resettlement process. This discussion compares the burden of disease between recently resettled Africans and Iraqi refugees in Rhode Island.

Refugees in Rhode Island

The Federal Refugee Act of 1980 defines a refugee as a person who is outside of his/her country of origin and is unable or unwilling to return to that country because of the experience or legitimate fear of persecution on the grounds of race, religion, nationality, membership in a particular social group, or political affiliation.1

Since 1990, Rhode Island has resettled 4,779 refugees including 133 in 2008. Figure 1 reflects the fluctuation of refugees from year to year. This varies with the stability of countries, international affairs and policies. For example, the African continent has been plagued by ongoing civil wars, political unrest and natural disasters, causing the most horrific refugee crisis in recent memory. Although peace agreements in such countries as Angola and Sierra Leone have enabled many African refugees to repatriate, displacement in the Democratic Republic of Congo, Burundi, and Liberia continues. During 2008, Rhode Island continued to resettle refugees (n = 89) from several African countries including Burundi (31), Somalia (19), Tanzania (13), Democratic Republic of Congo (8), Ethiopia (4), Liberia (4), Eritrea (3), Kenya (3), Rwanda (3) and Sierra Leone (1). The decrease in refugees from the 1990s is a reflection of national policies and cutbacks. There is now an expectation that the numbers will rise with changes in administration.

Burden of Disease

Information regarding the burden of disease in refugee populations is collected through the medical report (Medical Examination for Immigrant or Refugee Applicant) provided by the US Department of State. The US State Department Panel of Physicians examines refugees in their country of exit, approximately sixty days prior to their departure. This five-page report provides a good basic profile of the refugee’s health before his/her departure and targets conditions that require follow-up when the refugee is resettled.

Physicians in Rhode Island hospitals complete the Rhode Island Refugee Health Screening Form within 30 days after the refugee’s arrival in Rhode Island. The form, developed by the Rhode Island Department of Health in partnership with a network of providers, targets the most important health conditions for refugees in the United States, e.g., tuberculosis (TB), hepatitis B, hepatitis C, elevated blood lead levels, sexually transmitted infections, anemia, malaria (if symptomatic), parasites, mental health illness, etc.

The Refugee Health Program produces an annual report based on the quarterly reports reflecting the number of refugees who entered the country during that period, countries of origin, sex, age distribution and Class A/B conditions according to the Medical Examination Classification. Class A conditions include the following: HIV/AIDS; active, infectious TB; untreated syphilis, cancroid, gonorrhea, granuloma inguinale, lymphogranuloma venereum; Hansen’s Disease (lepromatous or multicellular); and addiction or abuse of specific substances.
with harmful behavior. Class B conditions include the following: active, non-infectious TB; inactive TB; other sexually transmitted diseases; current pregnancy; Hansen’s Disease with prior treatment; and any physical or mental health disorder without harmful behavior or history of such behavior unlikely to occur. During 2008, the majority of the 133 refugees to Rhode Island had conditions that fell into Class B (n = 108).

African Refugees

African refugees have had little or no access to health services, and many have suffered from malnutrition, as well as typhoid, cholera, dysentery and malaria. In Rhode Island, during 2008, 33% (25%) of the 133 refugees had a history of malaria based on the medical reports and health screenings. Resettlement to the United States of malaria-infected refugees can pose problems for both the refugees and their resettlement communities. According to “Malaria in East African refugees resettling to the United States: development of strategies to reduce the risk of imported malaria,” epidemiologic data were reviewed and malaria prevalence surveys conducted. Nonetheless, the risk of malaria continues to be of concern in resettlement communities and is the leading cause of death among refugees.

Refugees also constitute one of the most difficult populations to reach with HIV/AIDS prevention and care services in Africa. Little is known about HIV infection and risk behaviors of refugees living in refugee camps. Female genital mutilation, performed on girls ranging from infancy to puberty, may have medical complications; e.g. severe pain, shock, infection, bleeding, acute urinary infection, tetanus, and death. In Africa, an estimated 80 million girls and women have undergone female genital mutilation. Rhode Island health care providers should be aware of the practice, because its complications may require immediate treatment or have other medical implications.

Iraqi Refugees

Rhode Island started the resettlement of Iraqis at the beginning of 2008, when 39 (29%) of the 133 refugees to Rhode Island came from Iraq. The most frequent diseases or medical issues among Iraqis have changed from chronic diseases (e.g., cardiovascular disease, diabetes, etc.) to conditions resulting from violence (e.g., bombings, gunfire, etc.).

Malnutrition and catastrophic sanitary conditions contribute to other diseases and illnesses including diarrhea, pneumonia, malaria and typhoid. Additional health risks include the hazards from chemical, biological, and radioactive pollution during prior conflicts. Water and sewerage capacity have never been fully restored. Of particular concern is the cluster of cancers and genetic defects, which some suggest are associated with depleted uranium (DU) usage in anti-tank weapons. Although Iraq had one of the most advanced health systems in the region, it has been in decline for several decades. Poor standards of care and inefficient referral systems are all in part due to pre-existing corruption, neglect, shortages and sanctions. In addition to the physical effects of war on the Iraqi population, high numbers also suffer with mental health illnesses.

Conclusions

The number of refugees coming to Rhode Island has fluctuated over the past ten years, and the countries of origin have also changed. Currently most (96%) refugees in Rhode Island come from Africa or Iraq. While malaria represents the greatest burden of disease, these refugees have also suffered severe psychological trauma. Health care providers should be aware of the severity of these problems and that these refugees are legally entitled to only eight months of medical coverage. The Refugee Health Program continues its work to: improve reporting of refugee health screening data; increase refugee access to culturally and linguistically appropriate services; and provide resources that assist health and social service providers to provide comprehensive care that is responsive to the needs of refugees.

References

1. INA 101(a)(42)(A); 8 USC

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Disclosure of Financial Interests

The authors have no financial interests to disclose.
Meyer Saklad, MD, Chief, Department of Anesthesiology, Rhode Island Hospital, praised the first Chief of Anesthesiology at the hospital. In “Albert H. Miller – Physician,” Dr. Saklad explained: “Modern-day anesthesia is indebted to him.” In particular, Dr. Miller insisted on examining patients before their operations, noting: “Some surgeons considered it a personal affront that the patient should require a physical examination before …an operation.” He recorded patients’ ages and postoperative complications, so that he could classify patients as to operative risk.

Leo Vincent Hand, MD, the President-elect of the American Society of Anesthesiology, and an intern under Dr. Miller, contributed “Arthur H. Miller: The Art of Anesthesia.” He noted Dr. Miller’s lesson: “the proper practice was for the anesthesiologist to establish rapport with the patient.”

The Journal printed “The Life of Arthur H. Miller: A Factual Account of Dr. Miller’s Life Based on Data Furnished by his Wife, Mrs. Ada Holding Miller, to Dr. Alex Mr. Burgess, Sr.” Born in Maine, Dr. Miller graduated from Bates (1894), from the School of Science at Bowdoin (1895), and received a medical degree from Columbia (1898). At one point he headed departments of anesthesiology at Rhode Island, St Joseph, Memorial, Providence Lying-In, Butler, South Country, Truesdale, “and other” hospitals. The article highlighted his first major decision: “to do away with the old, closed-cone method of giving ether.” He substituted an open cone he had invented: the patient didn’t choke, and the procedure used less ether. The author reported: “The method is still used.”

Bencel L. Schiff, MD, in “Kaposi’s Sarcoma,” discussed the unusual occurrence in the lower left ankle and leg of a 24 year-old man.

Richard B. Knowles, MD, in “Acute Massive Digitalis Intoxication,” discussed a 33 year-old housewife whose symptoms cleared within four days after “therapy with pronestyl, potassium chloride and a low-carbohydrate diet.”

Bruce C. Kelley, PhD, David M. Gute, PhD, Peter P. Potthoff, MS, and William J. Waters, PhD, all from the Rhode Island Department of Health, discussed “Health Promotion Activities at the Worksite: A Rhode Island Business Perspective.” The Department of Health had conducted a sample survey of all private-sector firms (with 20 or more employees). The results were similar to those from a study of workplaces in California. Of 952 employers, results showed a positive correlation between size of firm and medical program. Many respondents cited positive benefits of health programs. More than 40% “believe that health promotion programs increase worker productivity.”

Elizabeth Conklin tracked key legislative issues for the Rhode Island Medical Society. In “Rhode Island General Assembly Adjourns in May,” she reported on those issues; e.g., medical malpractice, optometric drug use, physician assistants, living wills, mental health, worker’s compensation, legal drinking age (raised to 21), emergency telephone system ($5 million bond referendum to finance the 911 system was put on the ballot), and physician participation in insurance programs (law requires physicians to make known their Medicare assignment policy).
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