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MEDICAL IMAGING

winners of our photo contest

ALSO INSIDE:

minnesota MEDICINE
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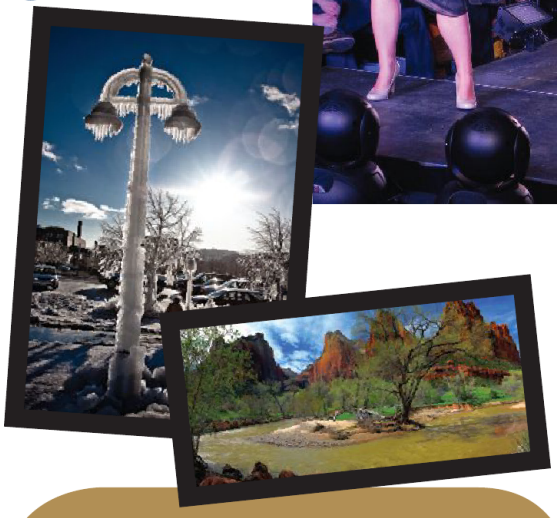
JULY 2011

TABLE OF CONTENTS


17


22




14


47

COVER STORY

Medical Imaging

Winners of our photo contest

p.30

37

FEATURE

Medical Musings

Results of our eighth annual writing contest

Student Winners

Physician Winner

Physician Honorable Mention

PULSE

PERSPECTIVE

MMA NEWS

COMMENTARY

CLINICAL & HEALTH AFFAIRS

ALSO INSIDE

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Copyright & Post Office Entry
Minnesota Medicine (ISSN 0026-556X) is published each month by the Minnesota Medical Association, 1300 Godward Street NE, Suite 2500, Minneapolis, MN 55413.

Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine,* 1300 Godward Street, Ste 2500, Minneapolis, MN 55413.

Subscriptions
Annual subscription - $45 (U.S.), $80 (all international)

Missing Issues and Back Issues
Missing issues will be replaced for paid subscribers at no additional charge if notification is received within six months of the publication date. Replacement of any issues more than six months old will be charged the appropriate single back issue price. Single back issues of Minnesota Medicine can be purchased for $25 (U.S.) and $30 (Canada, Mexico, and other international). Send a copy of your mailing label and orders to Kristin Drews, 1300 Godward Street, Ste 2500, Minneapolis, MN 55413 or fax it to 612/378-3875.

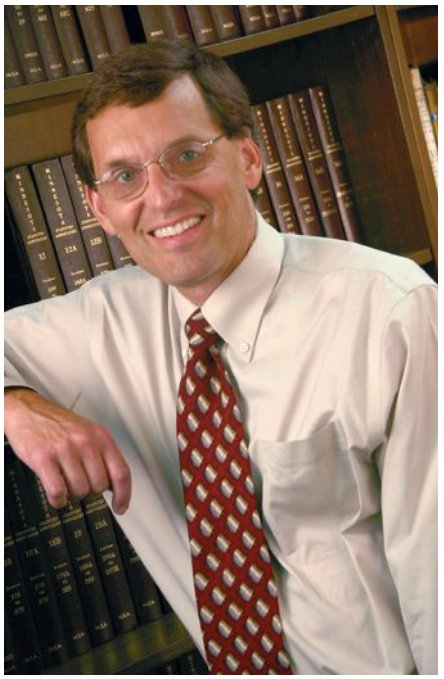

Photo by Scott Walker

Seeking the Spark

I've got Frank Lloyd Wright on the brain. While I was half way through T.C. Boyle's novel *The Women*, based on the wives of Frank Lloyd Wright, my wife and I happened to stay at a Wisconsin resort with cabins designed by one of Wright's followers. We completed our immersion into FLW by watching Ken Burns' documentary of the architect's life. Radical yet lyrical, Wright's creations such as Tokyo's Imperial Hotel and Manhattan's Guggenheim Museum exploded convention and turned architectural heads.

Tumultuous and erratic, Wright's life was a roller coaster of torrid love affairs, failed marriages, and professional doldrums preceding artistic triumph. Through acclaim and acrimony, the one constant in FLW's life was his creative spark, which stayed aglow to the last of his 92 years. For most mornings of his life, Wright went straight from bed to drafting table, pouring the fire of his ideas onto the page through the lead of his pencil. In one legendary flood of genius, Wright drew the sketches for his most famous house, Falling Water, in the three hours it took the house's purchaser to travel from Milwaukee to Wright's studios at Taliesin.

For most, creative ideas aren't endless streams that come unbidden each morning or disgorge in three-hour torrents. Many artists wait days, weeks, or years for the breakthrough. Some retire each day to their nook, like John Updike did, surrounded by his books and a Cape Cod vista. Some, like my former Bennington instructor, writer Bob Shacochis, flee to the isolation of the New Mexico mountains. Apart from human interaction and alone with their thoughts, they wait for the internal muse to speak.

For some artists, the muse needs help, a gentle shove to rouse the juices and get the creativity stirring. Some watch the sunset while they paint. Others listen to Bach while they write. Still others sit for hours in the Louvre while they compose. Small flames in the tinderbox of creativity, muses are ethereal-but-real forces in the artistic process.

Physicians who write, paint, perform, or photograph frequently don't have the luxury of time to flee to the mountains or sit for hours in front of great paintings. They must find their inspiration on the job, in the bustle of the operating room, through the crisis at the bedside, or in the hush of the exam room. In these venues, muses can be hidden out of sight or earshot unless watched or listened for. But if we pay attention, our patients' predicaments and stories are kindling enough for endless artistic fire. And this month's *Minnesota Medicine* is proof again that Minnesota physicians and medical students are paying attention and finding their muse.

Growing up in River Forest, Illinois, I walked to school past Frank Lloyd Wright homes, dramatic houses with arched entries and horizontal lines that made them seem modern 60 years after their construction. Wright houses are full of surprises, hidden recesses, outsized fireplaces, and camouflaged front doors. In the middle of the house that served as Wright's studio for years, a fully-grown elm stretched its branches toward the sky, rising as a symbol of a matchless, soaring creative vision.

Our patients' predicaments and stories are kindling enough for endless artistic fire.

Charles R. Meyer, M.D., editor in chief, can be reached at cmeyer1@fairview.org

If Only They Had Known Her

I am writing this with tears in my eyes. One of the stories in your article "Is There a Doctor on Board?" (June, p. 25) deals with our business manager. She died en route to Florida in January with her sister and daughters present.

She was and will always be one of the people I have most admired. She was a multi-cancer survivor who never had a bad day. She truly was an inspiration to many of us and the heart and soul of our practice. We are still trying to recover from this loss. It was interesting for us to hear the physicians' perspective, but I only wish they had known what a truly special person she was.

Stephen T. Hustead, D.O., FACC
Metropolitan Cardiology Consultants
Minneapolis

Kids Need Restraints

I read your advice to parents about flying with young children ("Children and Airplanes: Are We Having Fun Yet?" June, p. 33) and am appalled that the author was ambivalent about whether all children should be in their own airplane seats appropriately restrained and that he bought into the FAA's spurious claim that if parents had to purchase a ticket for their youngest kids, more would drive not fly—and there would be more children injured as a result.

Both of these ideas have been discredited by the National Transportation Safety Board, which is the nation's watchdog agency over all mass transit.

The article lists a number of sources including the FAA website on traveling safely with kids, which makes the point that all children are safer in the event of unexpected turbulence and rough landings if they are in their own seats in approved child restraints.

The biggest problem is a practical one: until recently, the only child restraints approved for kids were regular car seats, which are huge, clumsy, and not appropriate for long security lines, crowded spaces, narrow aisles, etc. But there is an "airplane-only" child restraint, the CARES child aviation restraint, which has been FAA-certified for all phases of flight. It is for kids 22 to 44 pounds from 1 to 5 years of age, weighs one pound, and can be carried in a pocket. (To learn more, check out www.kidsflysafe.com.)

The FAA and the airlines should be ashamed of themselves for not providing an equivalent level of safety to the youngest travelers who, unlike their elders, cannot brace in the event of severe turbulance.

Louise Stoll, Ph.D.
Managing Director
Kids Fly Safe, LLC
Burlington, Vermont

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WE WANT TO HEAR FROM YOU!

■ **Photography**

A Life in Pictures

Taking photos is the best medicine for pediatric surgeon Roberta Sonnino. | BY SUZY FRISCH

Of the thousands of pictures Roberta Sonnino, M.D., has taken over the years, one in particular illustrates for her the powerful connection between her photography and her career in pediatric surgery: It's of a premature baby, swaddled in blue surgical towels, resting her tiny hand in the large hand of the chief surgical resident. To Sonnino, the image of their hands together exudes compassion, healing, and the fragility of life. "That picture became the emblem for me," says Sonnino, who captured the moment in 1990 when she was an assistant professor of surgery and pediatrics at Rainbow Babies and Children's Hospital in Cleveland.

Now a professor of pediatric surgery and associate dean for faculty affairs at the University of Minnesota Medical School, Sonnino also is a professional photographer whose work has been exhibited across the country and published in books, magazines, journals, and online. "Being a photographer is a big part of who I am, and it was a big part of my practice," she says.

Sonnino began shooting photos to relieve stress during the early days of her medical career. She says it still helps her unwind, although she retired from clinical practice in 2004. "The best way I can summarize it is that photography is my mental sanity. If I'm stressed, tired, frustrated, or have something on my mind, the first thing I do is grab my camera. The world we live in is very regulated. Surgery is very regulated—you have to do things a certain way. This allows my creative side to come out."

And while giving Sonnino an outlet, photography also has served her professionally. It's provided her with another way to forge bonds with her patients and their families.

Sharp Shooter

Born into a family of photographers, Sonnino began snapping photos around the age of 3 with her father's camera. She spent most of her childhood in her parents' native Italy, and often Venice and the Dolomite Alps served as stunning backdrops in her pictures. Her skill became apparent early, and by the time she was in high school, her classmates were paying for her pictures.

She didn't combine photography with medicine until medical school, when the chair of her department at the University of Padova asked Sonnino to take clinical photos during his operations.

Eventually, photography developed into an important part of Sonnino's practice. About nine years ago, when digital photography made it easy to slip a small camera into her lab coat, Sonnino started shooting pictures of her patients and other babies in the neonatal intensive care unit (ICU).

At first, the photos were just for her personal use and for teaching purposes. But over time, she started printing copies for the parents of her patients. And that's when her practice—and her relationship with her patients—changed.

"I think it allowed me to connect with my patients and their families on a completely different level," she says. "I wasn't just a doctor or surgeon telling them what's right or wrong with their kid. There was a human connection that opened the door for conversations you might not have had with families and their kids." She noticed a greater sense of trust and sensed families were more comfortable asking questions about their child's care without worrying that they were wasting her time.

She began to see her patients differently, too. They were no longer "the appendectomy in Room 2," she says. "They were the cute kid who had an appendectomy in Room 2."

Eventually, Sonnino started photographing infants in the neonatal ICU weekly. She would create albums that documented the first months

Photo by Steve Wewerka

Roberta Sonnino, associate dean for faculty affairs at the University of Minnesota Medical School, is an advocate for having an avocation. Hers is photography. Here she is with a favorite photograph—of the hand of a premature infant resting inside the hand of a resident.

Photos courtesy Roberto Sonino

Top: Sonnino began taking photos in the neonatal ICU about a decade ago. This one appeared in the book *Journey to Authenticity–Voices of Chief Residents*.
Bottom: This image of a newborn sleeping with her head cradled in her mother's palm, which Sonnino calls "Sleeping Beauty," appeared on the cover of *Academic Medicine* in January.

of these fragile babies' lives and give them to the families right before the infants were discharged.

Taking pictures was often the farthest thing from the minds of the parents, who were so intently focused on caring for their children. Some didn't own a camera or couldn't afford to pay a photographer. "People don't think to bring cameras in, or in life and death situations they feel it's inappropriate," Sonnino says. "When I started handing out pictures to my patients, I thought the reaction was over the top. But my staff told me most of my patients didn't have an 8-by-10 of their child, and I had given them something they thought they would never have."

Photos for Grieving Parents

Sonnino also volunteers for Now I Lay Me Down to Sleep, a nonprofit that provides free professional photographs to families whose babies are stillborn, terminally ill, or die in early infancy. Since she began working with the organization in 2006, she has taken pictures for about 50 families. "It makes a humongous difference in families' grieving process and their ability to heal. The families were never going to take their babies home. Now they have these pictures they can cherish," Sonnino says. "You also get a huge sense of satisfaction. I no longer take care of the kids, so it allows me to do something to help these families in a different way."

Although mostly self-taught, Sonnino has completed a correspondence course through the New York Institute of Photography and participated in several photography workshops over the years. Earlier this year, she passed the Professional Photographers of America exam and is on her way to becoming a Certified Professional Photographer. She often pores over photography books and magazines, gaining inspiration from Ansel Adams,

Galen Rowell, Anne Geddes, and Sandy Puc', the co-founder of Now I Lay Me Down to Sleep.

Sonnino's favorite subjects are children, but she also enjoys shooting flowers, bugs, and coral reefs as well as sunsets, underwater sea life, aerial pictures of land, and reflections on water. Her photograph of the silhouette of an airplane against a yellow field at sunset graces the cover of the book *Ghost Plane* by Stephen Grey. The television show "Extreme Makeover" turned her "Cloud Nine," an aerial shot of clouds hovering over the land, into a tile floor for a client's bedroom.

Numerous galleries have held shows that included Sonnino's work. Locally, her photos have been displayed at the University of Minnesota's Amplatz Children's Hospital and Hennepin County Medical Center. Her images have also appeared in shows sponsored by Blue Cross and Blue Shield of Nebraska, the University of Kansas Medical Center's Child Development Unit, and the March of Dimes. In addition, they are displayed on her website, www.hiresphotos.com. In 2007, Sonnino was commissioned to take pictures for *Journey to Authenticity: Voices of Chief Residents,* a coffee table-type book published by the Accreditation Council for Graduate Medical Education. Sonnino traveled around the country taking portraits for that book, which won several awards.

Advocate for an Avocation

Sonnino's office at the U boasts just a few of her photos, including a poster-sized shot of an arena in Verona, Italy, at night and a close-up of two cats' faces. She plans to ramp up her photography business, marketing her services and seeking medical photography or portraiture jobs after she retires.

For now, though, Sonnino is trying to teach her peers about the importance of having outside interests. (In addition to photography, she also enjoys alpine skiing, biking, hiking, scuba diving, and listening to classical music—especially opera.) She often speaks to faculty groups about maintaining balance in life. She also talks one-on-one with physicians who feel the need to get re-energized about their work—a sign of burnout, she says. "I have seen people who don't have anything they can retire to because they didn't plan it," she says. "I have photography on my CV because I want to be a role model to faculty for having a plan when I retire."

In her next chapter as a professional photographer, Sonnino plans to continue documenting the lives of her former patients. She says the relationships she's formed with many of her charges and their families following surgery continue today. When Sonnino travels for meetings or conferences, she often reconnects with them. "I like to take pictures of what they look like now," she says. "That's fun, and the families won't let you go."

Recently, she met and photographed a former patient, whose first photos she took after he had half a lung removed as a newborn; today, at 21 he is studying bassoon at The Julliard School. "What surprises me is that he has the lung capacity to play the bassoon professionally," she says, noting that her photos deliver "a very positive message." ■

■ **Student Blog**

The Body Electric

Medical students create an online showcase for their creative works. | BY KIM KISER

Every day, across the entire globe, millions of physicians begin millions of stories with, Patient presents with—medicine's Once upon a time. Indeed, every hospital visit is itself a collision of stories, those of patients, and families, and workers, and science.

Those words come from the editor's introductory note in "The Body Electric," an online forum for University of Minnesota Medical School students (http://ilovethebodyelectric.blogspot.com/). The blog was created this past January by Aaron Crosby and Neil Siekman, both of whom recently finished their first year.

At the time, Siekman was finishing up a screenplay he and a friend had been writing. He discovered Crosby was also interested in creative writing, and together, they decided to create a place where they and other students could share their works.

Since Siekman and Crosby got word of the blog out by email and on Facebook, a number of students have posted their essays, poems, photos, and musical recordings. Some are related to medicine. For example, one student shared a poem she wrote that compared love with *Staphylococcus aureus* infection.

Siekman says they hope to make the forum more interactive and encourage members of the incoming class to contribute as well.

"Medicine is one of the most humanistic of all professions," Crosby says. "You can't just be studying science and applying it to other people. You have to explore your own humanity." ■

Photo courtesy Minneapolis Institute of Arts

A docent at the Minneapolis Institute of Arts discusses a painting with adults who have memory loss and the volunteers accompanying them.

■ **Art and Memory Loss**

Visual Cues

A Minneapolis Institute of Arts program aids people with memory loss.

| BY CARMEN PEOTA

Medical student Jamie Starks has witnessed firsthand how quickly the scope of a person's life can shrink because of cognitive decline. She saw her grandmother, who was diagnosed with dementia with Lewy bodies several years ago, go from being active and independent to being withdrawn and depressed as she found herself able to do less and less. Starks had seen similar effects when she worked at an adult day-care center during her undergraduate years in Madison, Wisconsin. But there, Starks also saw something else: how people with dementia changed when they were exposed to art and music and took trips into the community.

Last year, when Starks stumbled on a description of the Discover Your Story tours, a Minneapolis Institute of Arts (MIA) program in which specially trained docents lead discussions about selected pieces of art, she signed on as a volunteer. The tours are designed to help people with memory loss reflect and reminisce as they compare their own stories with those told in the works of art. Starks, who recently began her third year of medical school, escorts people on the tours. ↳

Medical students Kim Spronk and Jamie Starks want the wider medical community to know that the Minneapolis Institute of Arts' Discover Your Story program is a resource for anyone. "We'd like to get the word out to providers that if they have patients who have memory loss or dementia and need an outing or intellectual stimulation, we'd encourage them to tell their patients about this program," Spronk says.

Tours take place on the second Friday and Saturday of each month and can be scheduled for any time the museum is open. All tours are free, but preregistration is required. To reserve a space, call 612/870-3140. For further information, go to www.artsmia.org/index.php?section_id=26.

Starks says people who come in withdrawn and reserved opened up during the tours. "You get them in front of art, and you ask them questions about the art and experiences from their life and if it reminds them of anything," she says. "It's really quite remarkable to see them awaken and see how happy and engaged they become."

Starks thinks that's in part because of the way the leaders engage tour participants. "You can see them respond to being treated like there isn't something wrong with them. They get to escape from being someone with a disease for at least an hour, be normal adults, be intellectually stimulated, and interact with their peers."

Starks was so impressed with the program that in the fall of 2010 she recruited classmate Kim Spronk to go on a tour. "I only had to go once to see that it was a great program and something that I definitely wanted to be involved in," Spronk says. Now both women are recruiting their peers at the medical school to volunteer with the program.

Spronk points out that volunteering benefits the students in addition to the people they're trying to help. "There's really a lot to be learned about how to effectively engage with someone who has dementia," she says. It's a skill Starks thinks will be increasingly important for doctors in the future, as the population ages. And that's one reason she and Spronk are trying to get more medical students involved.

But both say the best part of volunteering is watching the way people respond to their experience in the museum. "Sometimes it happens the moment they walk in the door," Spronk says, noting that they begin to look up and around immediately because the museum itself is beautiful. "We see them come alive." ■

■ **The Healing Tree Project**

A New Leaf

Patients express themselves through clay. | BY LISA HARDEN

Cardiac and respiratory problems may have stolen Mary Lanpher's ability to walk on her own and breathe without an oxygen tank, but they haven't robbed her of her creativity.

Lanpher is among 100 patients and their family members at Bethesda Hospital in St. Paul working with an artist from the Northern Clay Center to create a life-sized Healing Tree that will be displayed on a lobby wall after it is finished in the fall.

The initiative is part of Bethesda's healing arts program, which uses both the performing and visual arts to help patients who are recovering from injury or living with neurological conditions. The Healing Tree is a first-of-its kind collaboration with the Northern Clay Center.

"I wanted to do something with art that celebrates the human spirit," says Bob Payton, a therapeutic recreation specialist at Bethesda who is coordinating the partnership. "This is a fun project that takes patients' minds off their pain and lifts their spirits."

Working in small groups, patients and family members are making clay leaves that express their feelings about illness and the healing process. Sentiments that adorn individual leaves include "It's a journey," "He's not finished with me yet," "Thanks for taking care of my husband," and Lanpher's "Health, what a gift."

Participants include inpatients from the hospital's complex medical care, re-

George Hoyt works on a tile that will become part of the Healing Tree.

spiratory care, traumatic brain injury, and medical behavior units, as well members of the stroke, spinal cord, and memory care support groups and patients with Parkinson disease.

Artist Lucy Yogerst is designing the Healing Tree's trunk, which will represent the hospital's values—life, compassion, respect, and community. "Creativity is everywhere," she says. "Watching this come together is really something."

One participant, George Hoyt, who struggles to speak, had a twinkle in his eyes that spoke volumes as he painted a leaf alongside his wife and two granddaughters.

"It's not about the end product but the process," says Erin McGee, one of two therapeutic recreation specialists helping with the Healing Tree project. "The exciting part is watching people who think they have limitations discover that art is something they can do." ■

Photos by Janna Netland Lover

From left: Kathy El-Kandelgy, Bethesda staff member Erin McGee, Kay Gross, and Betty Hoyt and her granddaughter, Hannah Lehman, take part in a group session led by an artist from the Northern Clay Center.

■ Fisch Awards

Study Break

Medical students use Art of Medicine awards to explore their creative side.

| BY KIM KISER

Photo courtesy Xelias Aerial Arts Studio

Aerial artist and medical student Laura Waller performs on the Spanish web during Art-a-Whirl, an annual art crawl in northeast Minneapolis.

Since 2007, more than 40 University of Minnesota medical students have received Fisch Art of Medicine Student Awards. Named for Robert Fisch, M.D., an emeritus professor of pediatrics who is also an artist, the monetary awards encourage students to explore the arts and humanities—fields not typically emphasized in medical school curricula. "It's an opportunity to be more than a laborer of a certain profession," Fisch explains.

Students have used the awards to take classes or pursue an interest. Some have gone on to produce radio documentaries, record their music, or travel beyond Minnesota's borders to perform or study with a master of their art.

This year, 10 students received awards. They were honored at a ceremony in April at the Mill City Clinic in Minneapolis. Here are the stories of three.

Laura Waller

When Laura Waller needed a break from studying for her board exams this spring, she would drive to a converted warehouse in northeast Minneapolis, climb a rope, hang upside down, and practice drops, twirls, and other acrobatics.

An aerial artist, she has studied and performed at Xelias Aerial Arts Studio for the past two and a half years. Waller, who is starting her third year of medical school, competed in gymnastics in high school. "I loved it, but part of me wanted to do aerial arts, and it never happened," she says.

After finishing college at the University of Puget Sound in Tacoma, Washington, Waller came home to St. Louis Park and spent a year and a half working and earning a core certificate in public health before starting medical school. During that time, she signed up for a three-week introductory class at Xelias. "I had a job, I had time, I had money to spend and a car to get me there," she says.

But after the first class, she almost quit. "It was a 90-minute class, and I couldn't move afterward. I didn't go the second week but then reluctantly went back the third week. I thought, 'Do I really want to do this?'" she says.

Along with calluses, rope burns, and sore muscles, she has gained support from a community of encouraging coaches and classmates. "Together, we celebrate everyone's individual triumphs," she says, explaining that the class was made up of people ages 18 to 60, some of whom had never done anything athletic.

Since starting with Xelias, Waller has done six performances, the most recent one being at Art-a-Whirl, an art crawl in northeast Minneapolis. As far as apparati, she prefers working on tissu, which involves climbing a length of fabric, wrapping herself in it, and doing dramatic

Photo courtesy University of Minnesota

The Fisch Art of Medicine awardees with champions of the arts Jon Hallberg, M.D., and Robert Fisch, M.D. Pictured from left to right are Jon Hallberg, Justin G.R. Laube, Laura Waller, Ari Nahum, Tou Lee Xiong, Amy Wentland, Robert Fisch, Elizabeth Jacobson, Kyle Sanders, Kirsten Kesseboehmer, and Russell Johnson.

> "It's an hour and a half, where there's no dwelling on medical school."
>
> —Laura Waller

drops, and Spanish web, which involves climbing a cloth-covered rope slipping her ankle or wrist in a loop at the top, and performing acrobatic moves while spinning.

Waller used her Fisch award to pay for classes and a costume she wore in a recent show. Several of her medical student friends have watched her perform, and one even decided to try aerial arts herself.

"With circus, it's an hour and a half where there's no dwelling on medical school, which I think is really great," she says. "Circus really requires that you be there in the moment."

Justin Laube

Wearing a dark suit coat and white shirt, fourth-year medical student Justin Laube stepped in front of the audience at the Fisch award ceremony, rose to every inch of his height, and in a rich tenor began to sing "La donna è mobile" from Verdi's *Rigoletto*—a piece that he says shows his range. Laube then transitioned to the South African National Anthem, which weaves in lyrics in five languages—Zulu, Xhosa, Afrikaans, Sotho, and English.

The anthem has special meaning for Laube, who has family in the country. He spent four months there last year, during which he worked in Zithulele Hospital on the Wild Coast. There, he noticed how much a part of life music was. "There was singing everywhere," he recalls. "When people would be waiting to be seen in the clinic, they would start singing to pass the time."

Laube, who started playing the trumpet in the fifth grade and was a member of a concert band at the University of Wisconsin, Madison, had given up playing music during medical school. "But every moment of studying, I was listening to music," he says.

Then, as a second-year medical student, the St. Louis Park native had a chance to see Luciano Pavarotti and Andrea Bochelli perform. "Seeing them live made me want to sing," he recalls. Laube hadn't sung before. And when a friend gave him voice lessons for his birthday, he discovered it wasn't like being part of a concert band. "It was so emotional," he recalls. But he found he wasn't comfortable singing in front of anyone.

Laube applied for a Fisch award to continue with voice lessons. After returning from South Africa, he began working with an instructor at the MacPhail Center for Music in Minneapolis, exploring different types of music and working on singing in front of an audience. "I had seen 'The King's Speech' right before my recital, and I knew exactly what the guy was dealing with," he says. "He had an impediment. I was censored."

For Laube, who will be doing his residency in internal medicine at UCLA in Westwood, California, and hopes to continue with his music there, performing at the awards ceremony was the culmination of months of work, practice, and self-discovery.

"Singing relaxed me," he told the audience that night. "I learned to go from

The 2010-11 Fisch Art of Medicine Award Recipients

Elizabeth Jacobson, ceramics
Russell Johnson, drumming
Kirsten Kesseboehmer, drawing
Justin G.R. Laube, voice
Ari Nahum, piano
Kyle Sanders, dance
Laura Waller, aerial arts
Amy Wentland, ceramics
Tou Lee Xiong, painting
Erica Obara, piano

being a type A thinker to being more right-brained and intuitive."

Kirsten Kesseboehmer

Kirsten Kesseboehmer has straddled the arts and sciences throughout her life. During high school in White Bear Lake, she thought about going into medicine but also considered studying art. During her undergraduate years at the University of Wisconsin, Madison, she took premed courses but majored in English. "I wasn't sure I would be successful in premed classes, and I enjoyed English, so it was a great diversion," she recalls.

Other than doing a little photography, art fell by the wayside until she took part in an exchange program at the University of Technology in Vienna, Austria, between undergraduate and medical school. Originally intending to finish a double major in biology there, Kesseboehmer took some classes, then put academics on hold. "I decided I would try living in Vienna and not going to school," she says. She got a job and spent her free time sitting in a plaza near a church, painting. "I would sit next to an old accordion player and would be painting and people would come by and talk to both of us," she says. "It made me realize how much I missed doing my art."

When she started taking anatomy class in medical school, she would trace the muscles of the cadaver with a scalpel and imagine recreating the contours with a pencil on paper.

Kesseboehmer, who is starting her third year of medical school, used her Fisch award to take a 12-week life-drawing class at the Minneapolis College of Art and Design.

Taking the course meant leaving medical school behind for four hours every Thursday night—something Kesseboehmer found energizing and enlightening. "My instructor had done medical illustrating, and she was interested in the brain and using the left and right brain. We talked a lot about that. She would explain to me how a lot of drawing was a left-brain activity, which was interesting to me. I thought it was more of the other. But I realized you have to use your whole brain for everything," she says. "And it reminded me to use as much of my brain as possible—to be both concrete and creative—when solving problems in medicine."

Kesseboehmer came out of the class with a portfolio of Conte´ crayon drawings and prints, a number of which were displayed at the Mill City Clinic for the awards ceremony. She has since participated in several life-drawing coops in the Twin Cities, where artists come together to sketch. She hopes to take a life-sculpting class and also has been thinking about setting up a life-drawing class for medical students taking anatomy. "It's very important to have a humanitarian approach in medicine and not just look at the patient as a bunch of neurotransmitters," she says. "You need to look at the person as a human being and how they fit into their environment." ■

Medical student Keri Bergerson on the runway in a dress by Kayla Styczinski.

■ **Fashion**

Uniform Design

Scrubs become high fashion. | BY CARMEN PEOTA

The everyday uniform of surgeons was the focus of a unique fashion show held at the University of Minnesota's Rapson Hall in April. The event, called "Scrubbed Into Fashion," showcased the creative talents of six undergraduate clothing designers, each of whom made one couture and one ready-to-wear garment using scrubs, and the modeling ability of medical students, who strutted down the runway in those creations. The event was a fundraiser for Smile Network International, a nonprofit that brings teams of volunteer doctors to impoverished countries to repair the cleft lips and palates of children.

Medical student Ralph Radke came up with the idea for doing the fashion show/fundraiser last summer after his plan for going on a medical mission fell through. Radke, who is just beginning his fourth year, had wanted to go with a plastic surgery team to Guatemala. "I was thinking, how can I do something now rather than waiting until I'm a doctor?" he says.

A fan of the television show "Project Runway," Radke thought it would be fun to mix fashion and medicine and see what hap-

Photos courtesy of Minneapolis2night

Left: Medical students Julie Neborak (left) and Elizabeth Jacobson in dresses by Jennifer Krava, who told the judges she was inspired in part by the symbol of the caduceus.
Upper right: Medical student models Nicole Boettcher (left) and Keri Bergerson (right) with designer Kayla Styczinski as she explains her design approach to the judges.
Lower right: Medical student model Jo Barta wearing a dress by Jennifer Voth, who won the Scrubbed Into Fashion design competition.

pened. When he discovered that the local organization Smile Network International was doing just the kind of work he wanted to support, the concept for the event emerged. He pitched the idea to the medical school's student council, of which he's a member, as well as to an undergraduate fashion and business group, and the Smile Network's board of directors. All agreed to help out.

They enlisted a slate of sponsors including the university's Medical Alumni Society and put out a challenge to design students: What could be done with the plainest of garments? Radke sent an email to his fellow medical students asking for volunteer models. Eventually, six designers set to work making clothing for the medical students.

What could be done with the plainest of garments?

A Night of Glam

The night of the event, about 500 fashionistas, many of whom were medical school alumni, students, and faculty, gathered in the atrium of Rapson Hall, where a portable runway complete with colored spotlights was set up and a DJ played electronic rock music. Attendees munched on hors d'oeuvres, collected "swag bags" and sunglasses provided by sponsors, bid on silent auction items, and watched the show.

Christopher Straub, an Edina fashion designer who appeared on season six of "Project Runway," served as the emcee and showed off his own collection of scrubs-inspired clothing using professional models. Then, the medical students hit the runway.

Like the professional models, the students first struck a pose with shoulders back, pelvis thrust forward, and a sober expression on their faces, then took commanding strides down the catwalk—the students had been coached by a volunteer on how to model—wearing clothing that looked like anything but scrubs.

One garment had hand-painted neon-colored designs inspired by African prints. Another had exposed metallic zippers to reflect the look of surgical tools. One of the designers had cut 11 pairs of scrubs into strips, washed them so they frayed, dyed them black, then sewed them into ragged vests and shawls.

The clothing was judged by three local fashion-industry experts. Winner Jennifer Voth told the crowd she took her inspiration from the anatomy of the human heart. She had dyed tan scrubs red and purple and screen-printed shapes similar to the chambers of the heart on her form-fitting dresses. Clever touches included using drawstrings from the pants to create straps for the dresses and sewing matching gloves.

"I thought everyone did an amazing job," Radke says. "They put a lot of time into it and had really well-thought-out garments."

Three months after the event, Radke, who was all smiles himself that night, is still amazed at the success of the fashion show—it raised $10,000 for the Smile Network. "I would love to see it go on and on," he says. "For sure, we're going to try to do another year." ■

Photo by Steve Wewerka

Patricia J. Lindholm, M.D.
MMA President

An All or Nothing Career?

Fifteen years into my career, I began wondering if I could go the distance.

After reading a thought-provoking and controversial op-ed in the *New York Times,* "Don't Quit this Day Job," by Dr. Karen S. Sibert, I decided to share it on Facebook. Wow, did I ever generate discussion. The premise of the article is that working "part time" (less than 60 hours per week) is a disservice to society because tax dollars subsidize part of medical school and postgraduate education. "I think it's fine if journalists or chefs or lawyers choose to work part time or quit their jobs altogether," Sibert writes. "But it's different for doctors. Someone needs to take care of the patients." She argues that with the projected physician shortage, only those who commit to full-time practice (more than 80 hours per week) should be admitted to medical school. She is especially harsh with women physicians, whom she says are "less productive" than their male counterparts.

Perhaps this article hit home for me because I was trained during the same era as Dr. Sibert. I fully bought into the "macho" model of medical practice. I missed weddings, recitals, and reunions because I did not feel free as a student or resident to ask for any special favors. I became the mother of three lovely children during my training years but tried hard to not let being a parent affect my ability to work because I did not want to appear to be a slacker or to inconvenience my fellow residents. When my children were still quite young, I started a practice and was on call nearly seven days a week. I had a busy clinic practice, an inpatient service, and saw obstetrical patients who delivered at all hours (mostly at night, it seemed).

My children had the good sense to choose careers other than medicine. When they were in grade school, they frankly stated that they did not want to work the long hours their mother was working.

That style of practice left me feeling burned out. Fifteen years into my career, I began wondering if I could go the distance. I entered lotteries and sweepstakes, hoping to win enough to retire early. I fantasized about being a full-time gardener (my favorite hobby). In my practice, we had no experience with part-time practice or job sharing.

It took a crisis in the form of suicidal ideation for me to come to my senses, get help, and restructure my life. I know now that I made the right decision to cut back on some work hours and responsibilities. I'm a better doctor to my patients because of that; but still, I feel some shame about admitting that I could not live up to my image of the ideal, heroic doctor.

Must medicine be an all-or-nothing career as Dr. Sibert implies? Must we give our lives completely to our profession, or can we have a life and a practice?

I suspect that the physician shortage will worsen if we tell prospective medical students that they must choose between medicine and self-care, family, or the other soul-feeding activities that make life joyful.

State Launches Time Out Campaign

The Minnesota Safe Surgery Coalition's campaign to eliminate wrong-site, wrong-procedure, and wrong-patient events within three years is gaining momentum. More than 100 health care providers thus far have pledged to join the Minnesota Time Out Campaign, a statewide effort to eliminate mistakes by conducting a time out for every patient, during every procedure, every time, and in every health care setting. The MMA has promoted the campaign and is a member of the Safe Surgery Coalition.

The Time Out campaign asks physicians, frontline staff, and administrators to hold each other accountable for conducting effective time outs for patients undergoing invasive procedures. It is a response to the increasing number of wrong-site events that have occurred in Minnesota health care facilities. Between October 2009 and October 2010, 31 wrong-site events were reported in the state. Many of those were attributed to the lack of an effective time-out process; in a number of cases, there was no process in place.

During a time out, all activity stops, and a designated staff person verifies the patient's name, the procedure, and the location of the procedure while referring to source documents. A staff person other than the one performing the procedure then locates and verbally confirms that he or she can see the site mark and states where it is located. The person performing the procedure then repeats that information.

"We cannot be successful without the commitment of every physician and Minnesota health care organization that conducts surgical and other invasive procedures. It is crucial that we work together to make sure the Minnesota Time Out steps are followed everywhere and all the time. Without this level of consistency and rigor across the state, we will not achieve our goal," says Robert Meiches, M.D., MMA CEO.

The Minnesota Time Out campaign was officially launched June 15.

"We got a really great response from the provider community, and a number of specialty societies signed on," says Rebecca Schierman, MMA manager of quality improvement.

For more information about the Minnesota Time Out campaign, contact Schierman at rschierman@mnmed.org.

■ **Meet a Member**

Therese Zink, M.D., M.P.H.

Through the MMA Foundation, writer and educator Therese Zink has published a collection of Minnesota medical students' essays and poems. | BY LISA HARDEN

Writing is more than a pastime for family physician Therese Zink, M.D., M.P.H., who recently edited two collections of enlightening stories and poems by physicians and medical students.

Zink, whose works have been published in *Family Medicine, Academic Medicine,* the *Journal of American Medical Association, Minnesota Medicine,* and several anthologies, says that writing helps physicians work through what they witness. "It's important as doctors to process what you see. It makes you a better physician."

Zink is helping the next generation become better physicians through writing. As a faculty member in the Rural Physician Associate Program at the University of Minnesota, she reads posts on a discussion board by students on rural rotations.

In 2007, she realized that those chronicles of rural practice begged for a larger audience. She solicited stories and poems from doctors and other health professionals along with some medical students to include in *The Country Doctor Revisited: A 21st Century Reader,* published by Kent State University Press in 2010. The realistic depiction of rural medicine—no Marcus Welby here—received rave reviews from the medical community and is being used by the Society of Teachers of Family Medicine to prompt discussions between rural physicians and medical students about the realities of rural practice.

In her latest project, Zink has collaborated with the MMA Foundation to publish a collection of 20 stories and poems from medical students at the University of Minnesota and Mayo Medical School. *Becoming a Doctor: Reflections by Minnesota Medical Students* will be given to first-year medical students at the University of Minnesota and Mayo for the next four years, as well as medical school faculty.

The book also will be sold at University of Minnesota bookstores. Proceeds will benefit the Fisch Art of Medicine Student Awards and the Vince and Mary Kay Hunt Global Health Fund.

"The students' stories remind us of the incredible privilege we have as doctors to walk side by side with patients in the best and worst of times," Zink says. "The students are just learning to assume the mantle of that privilege.

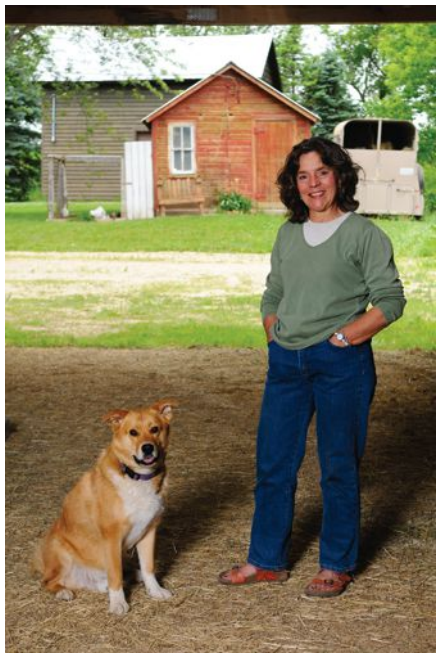


Photo by Steve Wewerka

Therese Zink on her farm near Zumbrota. Zink writes creatively in order to process her experiences as a doctor, which she says helps her be a better family physician. She's encouraging medical students at the University of Minnesota to do the same.

"When you practice medicine for a while, you take that privilege for granted. When you see the students' writing and their sense of awe, it makes you realize what a privilege it is." ■

Therese Zink at a Glance

Specialty: Family medicine

Medical School: Ohio State University, 1985; M.P.H., University of Minnesota, 1992

Residency: St. Paul Ramsey Medical Center (now Regions Hospital) Family Medicine Residency, 1985-1988

Practice: Family physician at Fairview Zumbrota Clinic; associate director of research and evaluation for the Rural Physician Associate Program, director of Global Family Medicine, and professor of family and community medicine at the University of Minnesota

MMA Involvement: *Minnesota Medicine* advisory committee member; editor of *Becoming a Doctor: Reflections by Minnesota Medical Students*, which will be distributed to all first-year Minnesota medical students beginning in 2011 and funded by the MMA Foundation

Hobbies: Writing, cross-country skiing, horseback riding, biking, running, gardening

Legislative Limbo

The 2011 legislative session ended without a budget deal and significantly fewer new laws than usual. Here's a look at some of the bills important to physicians that the MMA weighed in on this year.

Bills That Passed

COMMUNITY PARAMEDICS • Legislation was signed into law that creates a new level of provider called "community paramedics." They'll practice under the authority of an ambulance medical director and work with a patient's personal physician and health care home to help with care coordination. The law directs the commissioner of human services to convene a work group to determine the types of services community paramedics will be allowed to bill for and to evaluate how they could coordinate services with health care homes. The MMA supported this legislation.

CONCUSSION AWARENESS IN YOUNG ATHLETES • A new law requires all coaches or officials to remove athletes who are suspected of having a concussion from competition until the athlete has been assessed by a practitioner who is trained and experienced in evaluating and managing concussions. It also requires coaches and officials from school and association athletic programs to receive annual training on concussions based on information from the U.S. Centers for Disease Control and Prevention. The MMA supported this legislation.

ANATOMICAL GIFT PROMOTION ACCOUNT • People renewing their driver's license or car tabs will be able to donate $2 to an anatomical gift account, which will fund nonprofit organizations working to increase the number of organ, tissue, and eye donors. The MMA supported this legislation.

Bills That Didn't Pass

NEWBORN SCREENING REGISTRY REPEAL • S.F. 1017 would have modified the state's newborn screening law to prohibit the Department of Health from keeping any blood samples for more than 24 months. This would have put the testing labs out of compliance with federal laws and would have ended the state's newborn screening registry. The bill was originally included in the omnibus Health and Human Services budget bill but was removed because of opposition. The MMA opposed this proposal.

MINOR CONSENT REPEAL • Bills were introduced in both legislative bodies that would have repealed a provision in Minnesota law that allows minors to receive care for mental health, chemical dependency, and reproductive health issues without a parent's consent. This law has been on the books in Minnesota since 1974. The Senate bill, S.F. 1017, received a hearing in the Judiciary Committee but did not go any further. The MMA opposed the repeal effort.

FREEDOM TO BREATHE EXEMPTIONS • H.F. 188 would have exempted bars from the state's clean indoor-air requirements and would have allowed smoking in bars that are separated from restaurants by walls or doors. The bill never received a hearing in either body. The MMA opposed the exemptions.

SEAT BELT PRIMARY OFFENSE • The House approved a floor amendment to a judicial policy bill that would have repealed Minnesota's primary offense law for failure to wear a safety belt. If passed, it would have prohibited law enforcement officials from stopping and ticketing a driver solely for failing to wear a seat belt. The Senate never adopted the amendment, so the repeal failed. The MMA opposed this amendment.

MMA *in Action*

Some of the recent ways MMA staff and members have worked for physicians in Minnesota.

Dionne Hart, M.D.

■ The MMA, in conjunction with the Minnesota Academy of Family Physicians Foundation, held interpreter services training for medical students May 18 at the University of Minnesota Medical School's Duluth campus and for physicians May 25 at Affiliated Community Medical Center (ACMC) headquarters in Willmar. Dionne Hart, M.D., chair of the MMA Minority and Cross Cultural Affairs Committee, co-presented the material at ACMC, which serves a large number of patients who speak limited English in communities throughout southwestern Minnesota. MMA member Ruth Westra, D.O., chair of the department of family medicine and community health at the medical school in Duluth, led the session in Duluth.

■ MMA Trustee Roger Kathol, M.D., and MMA member Terrence Cahill, M.D., represented the MMA at a provider forum on May 25 convened by the Minnesota Department of Health to discuss what information and data should be included in an insurance exchange.

Roger Kathol, M.D.

Terrence Cahill, M.D.

■ Janet Silversmith, MMA director of health policy, conducted an educational session about state and federal health care reform implementation at Fairview Ridges Hospital on June 17.

Eric Dick

■ Eric Dick, MMA manager of legislative affairs, attended a June 16 meeting of health care lobbyists from around the state to discuss the possible consequences for providers and patients of a state government shutdown. Participants represented hospitals and medical clinics, dental clinics, services for the disabled and seniors, mental health clinics, and medical transport services.

Karolyn Stirewalt

■ Karolyn Stirewalt, J.D., MMA policy counsel, represented the MMA at a meeting of the ARRA Portability Grant Task Force to develop an expedited regional process for physicians who are seeking cross-border licensing. The task force is composed of staff members from regional state medical boards and medical societies in Wisconsin, Illinois, Indiana, Iowa, Kansas, Missouri, Minnesota, Missouri, and South Dakota.

■ Britta Orr, J.D., MMA health policy analyst, is part of a Minnesota Cancer Alliance work group that is developing a policy agenda with regard to cancer prevention. On June 2, members of the group met with leaders of the Office of Native American Health to discuss disparities in care and health outcomes.

■ MMA managers of physician outreach Mandy Rubenstein and Dennis Gerhardstein represented the MMA at the University of Minnesota's Graduate Medical Education orientation sessions June 17 and July 1.

Dennis Gerhardstein

Mandy Rubenstein

Maya Babu, M.D.

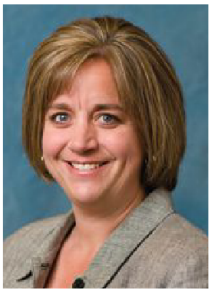
■ Ten MMA members were part of the Minnesota delegation to the AMA annual meeting June 18-22 in Chicago. Also attending were MMA Board Chair Dave Thorson, M.D., and MMA President-Elect Lyle Swensen, M.D. Seven other Minnesota physicians attended the meeting as well, representing their national specialty societies. In addition, 10 Minnesota medical students attended the AMA Medical Student Section meeting, and seven residents attended the AMA-Resident Fellow Section General Assembly. MMA member Steven Darrow, M.D., was elected AMA-RFS Speaker of the House. MMA member Maya Babu, M.D., was elected RFS delegate. MMA member Jon Van Etta, M.D., an internist at St. Luke's Internal Medicine Associates in Duluth, ran for

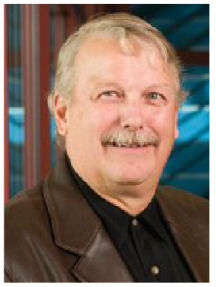
but was not elected to the AMA Board of Trustees.


Dave Renner

Dave Renner, MMA director of state and federal legislation, provided a legislative update to physicians at Lakeview Hospital in Stillwater on June 15. Eric Dick provided an update at Olmsted Medical Center on June 23.

Dave Thorson, M.D., and Janet Silversmith were among a dozen Minnesota health care leaders who met with Medicare and Medicaid Services Administrator Donald Berwick, M.D., June 21, to discuss new Medicare accountable care organization rules.


Janet Silversmith


Dave Thorson, M.D.

To contact an MMA staff member, visit our staff directory at www.mnmed.org/contact.

BCBS Contract Review Now Online


MMA

Twin Cities Medical Society

CONTRACT REVIEW
OF 2011 BCBS AWARE PROVIDER SERVICE AGREEMENT

The MMA has released its summary of changes in the Blue Cross and Blue Shield of Minnesota 2011 Aware Provider Service Agreement. Providers are required to accept the terms of the agreement to be a part of the Blue Cross network

Among the changes are the addition of a new provision on quality care delivery, a reduction in the amount of advance notice (from 90 to 45 days) providers will be given when changes are made to the agreement, and a requirement that providers make information available to subscribers about advance directives.

Each year, the MMA teams up with the Twin Cities Medical Society and the Minnesota Medical Group Management Association to provide this review for members. Physicians who want to know more about how the specifics of this agreement apply to their practice should contact their attorney, accountant, or consultant.

The full report is available online at www.mnmed.org/contract.

MEDICAL IMAGING

winners of our photo contest

St. Paul photographer Steve Wewerka, who served as one of the judges for our photography contest and regularly takes photos for *Minnesota Medicine* as well as national publications, says that taking a good photograph is a combination of finding an interesting subject and bringing your own artistry to it. For him, that means looking high and low at the subject to find a new perspective that will make the shot fresh.

As a challenge to himself, Wewerka began doing just that last January when he launched a year-long project called "Wandering I," in which he takes a photograph a day using the camera in his iPhone. "I use a minimal amount of equipment," he says, "which forces me to have to use all of my artistic and visual skills to create compelling, unique, fresh imagery." Those photos can be viewed on his website www.wewerkaphoto.com and on Facebook, where he posts a photo a day on his Wandering I page.

Fresh, unique imagery is what Wewerka was looking for when he helped pick the winners of our first annual photography contest. Last May, we challenged medical students and physicians to "Give Us Your Best Shots." They responded by submitting 47 photographs.

In addition to publishing the winning photos, we're also sharing what the photographers said about their images as well as Wewerka's comments about what made the winning photos so compelling.

1st place

John Valesano, medical student, University of Minnesota

Canal Park, Duluth

This was taken March 23, the day after an incredibly windy storm blew spray from Lake Superior on the trees and the street lights all night. Nothing says "Duluth, Minnesota" like a street lamp covered in frozen water from Lake Superior.

Steve Wewerka says three things stood out about John Valesano's first-place photo of the ice-encrusted street lamp: "The fact that it was unique subject matter, the fact that the photographer broke that golden rule of always having the sun behind you and did it successfully, and the fact that he added in the human element really made that a successful picture." He notes that including the child in the shot gives the image "a quirky feel."

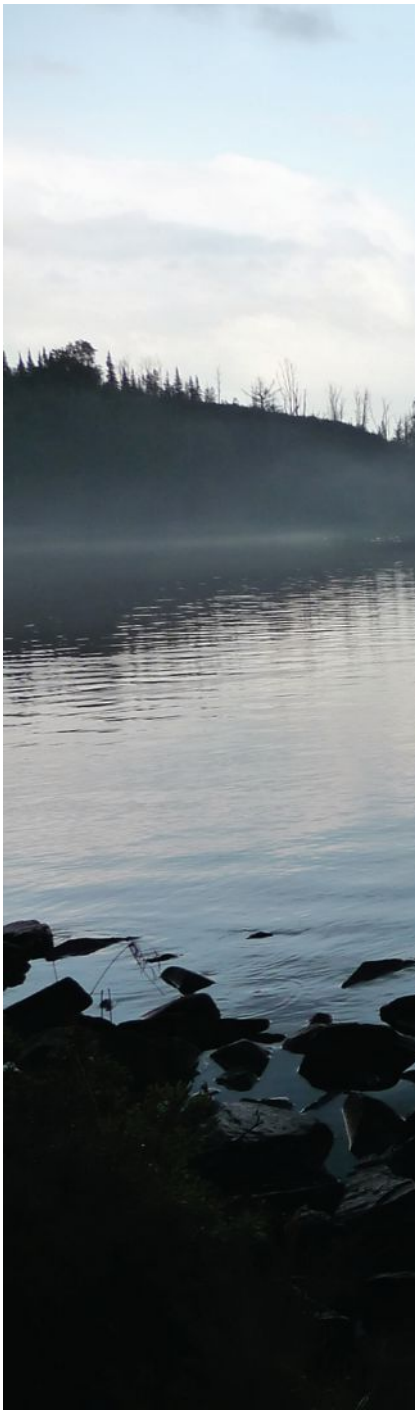
2nd place

Ann Vogt,
medical student, University of Minnesota

A butterfly caught in the water, Mabira Forest, Uganda

I was initially startled by something moving in the usually calm water. Then I realized it was a butterfly flapping its wings, trying to free itself and at the same time distorting the image of everything around it.

Second-place winner Ann Vogt's photo was "absolutely all about color," Wewerka says. But he also liked the fact that the butterfly is slightly off-center. "It wasn't this perfect bulls-eye picture of a butterfly on the water," he says. He also noted that the ripples in the water suggest "great movement" and make the photograph seem three-dimensional.



Wewerka says third-place winner Sean O'Brien's photo is all about composition. He notes that a number of elements suggest scale and distance. "There's the canoe on the shoulders of the people going into the water. It's angled just right so that it leads you into the picture. And it's almost pointing exactly at the other canoe that's out in the lake." He also says the ripples in the water near the person carrying the canoe give the photograph "a decisive moment" feel.

3rd place

Sean O'Brien,
medical student, University of Minnesota

Getting back to the water after a rain-filled portage, Boundary Waters Canoe Area

The scene was stunning. The photo captures some of the beauty of Minnesota.

Honorable Mentions

Rachel Steckelberg, medical student, Mayo Medical School

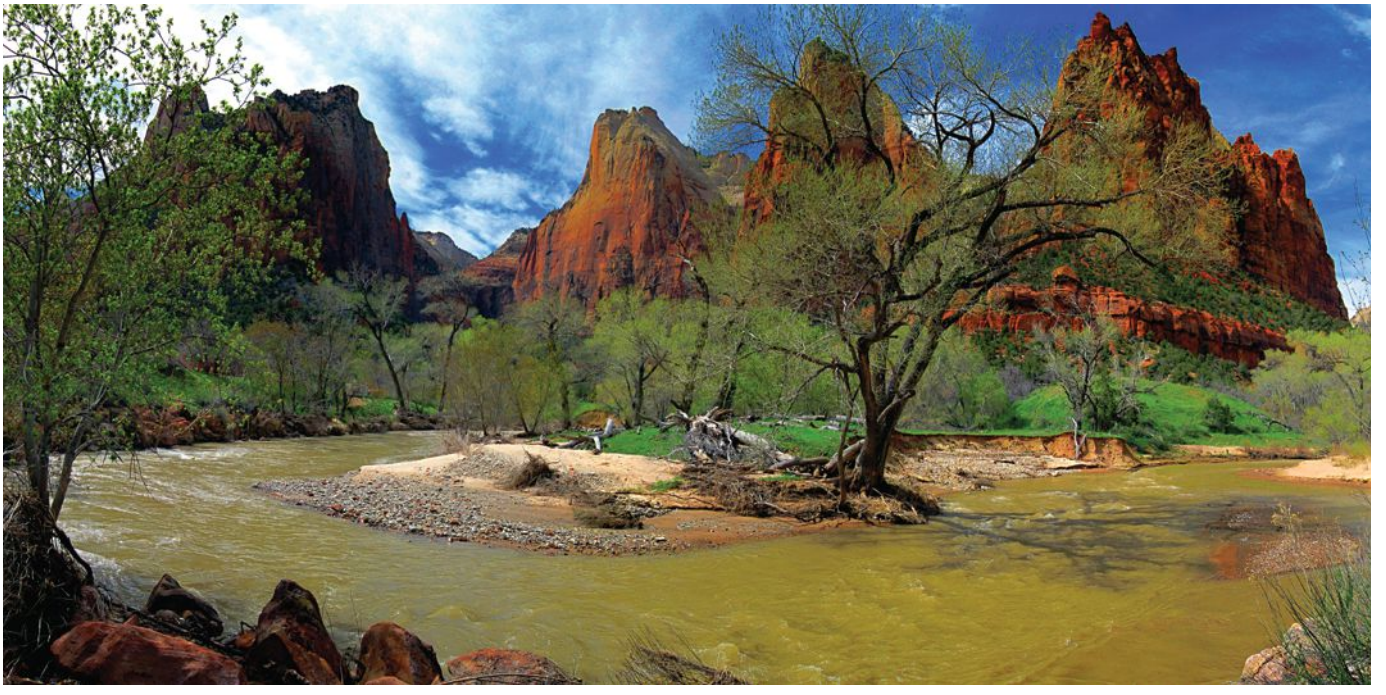
The Pagoda, Patterson Park, Baltimore,

What inspired her to capture the image: The lighting at the time of day I took the shot, and the unique architecture of the structure.

Amanda Weinmann, medical student, University of Minnesota

The Sentinel and Three Patriarchs, Zion National Park, Utah

I decided to treat myself to a vacation at the Grand Canyon and Zion. I am trying to learn photography but only had a small point-and-shoot, and this landscape gave me the idea to practice "stitching." This photo is really 15 small photos made into one. I was able to capture the Virgin River and all of the Three Patriarchs, something I could not otherwise have achieved with my small camera.



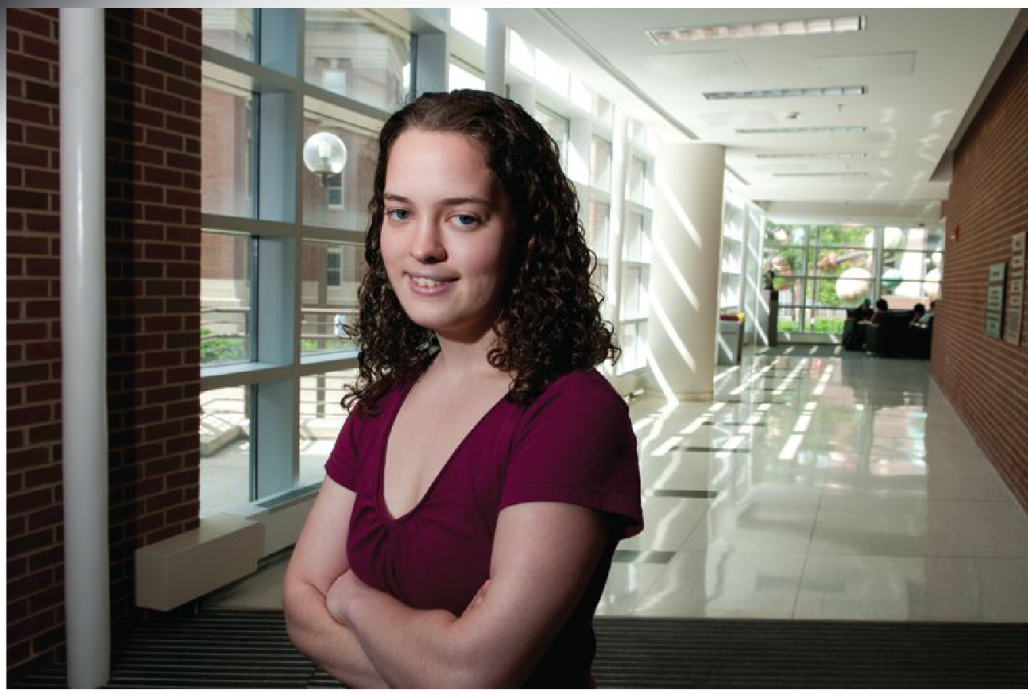
Medical Musings

Results of our eighth annual writing contest

Photography by Steve Wewerka

This year, 31 brave physicians and medical students entered their manuscripts in our annual writing contest. Our judges selected William Shores' poem "Hospice" as the winning entry in the physician category. Honorable mentions in the physician category went to Marilyn Aschoff Mellor's poem "I Believe, You Believe," Jamie Santilli's "Bethany, House of God," and Carrie Link's "Infertility 628.2." In our student category, we named two winners: "Unspoken Words" by Erica Warnock and "The River" by Aaron Crosby.

Thank you to all who entered. And congratulations to our winners.



Erica Warnock's "Unspoken Words" is about the crossroads of two worlds—that of being a patient and that of being a physician.

■ student winner

Erica Warnock

University of Minnesota

Erica Warnock has a perspective on medicine that few other medical students have. Having dealt with her own chronic health problems, she knows what it's like to be a patient. "I feel like I'm trapped between two worlds having had so many experiences as a patient and trying to learn to be a doctor," she says.

Writing, she says, helps her process what she is experiencing and feeling. "It's therapeutic." Growing up in Pittsburgh, she wanted to be a writer. But when she started experiencing migraines in middle school, her interests turned to medicine. She studied communication sciences and disorders and psychology at Northwestern University in Evanston, Illinois, before starting medical school last fall at the University of Minnesota.

Last spring, as part of the "Essentials of Clinical Medicine" class, she began spending half a day a week in the hospital, taking histories and performing physical exams. One of her patients brought her to the crossroads of being a patient and being a physician. "A lot of the things she was saying felt like words that could easily have come out of my mouth or have come out of my mouth at some point," Warnock says. "I felt like there were so many parts of her story I could relate to: having to deal with side effects of medications, having anxiety, feeling tired of being tested, having to figure out how to live her life now that she has this diagnosis."

Warnock couldn't stop thinking about the young woman. "There was the weird dynamic of realizing I'm now on the professional side and not knowing exactly how to approach her, what to say, and then about what I wanted to say to her." She wrote her winning poem "Unspoken Words" soon after that encounter.

Warnock says she doesn't usually write poetry but felt this story could better be told as a poem. "I wanted to frame it as an exchange between her and I, which seemed to fit the format of a poem better."

Unspoken Words

| By Erica Warnock

What do you know about suffering?
About living with sickness as a constant companion?
You are innocent and inexperienced
A carefree child
Your only understanding of pain
Is what is written in textbooks
You know nothing about disease.
Illness makes no distinction
All are vulnerable prey when it attacks
We fool ourselves into thinking
Healthy habits will protect us
Or the invincibility of youth will intercede
But the cloak of disease has enveloped me
As surely as it has surrounded you.
What do you know about medications?
About the problems that arise when the same drugs that help you
Post a flashing neon welcome sign on your forehead
Inviting infections to invade
Turn your lungs into the perfect lair for bugs
Bacteria and viruses and all types of nastiness
You know nothing about side effects.
It is a never-ending balancing act
Like walking on a tightrope in a circus
All it takes is the tiniest nudge
Or a strong wind
To push things in the wrong direction
Then the side effects become worse than the disease itself
And you must cope with the consequences.
What do you know about being a patient?
About the procedures that never end?
Scan, scope, culture, repeat … and repeat again
They search deep within
Examining your innermost parts
Yet answers remain elusive
You know nothing about tests.
Sometimes you feel reduced to a specimen to be studied
You wonder if you are a person anymore
Or just a body to probe and scope
An empty vessel full of isolated organs
Your diagnosis becomes an intellectual challenge
Dependent on your body but not on you
And test after test tells them nothing.

What do you know about fear?
About all of the worries that come with being sick?
Last night I had a heart pounding,
Thoughts racing
Body sweating
Panic attack
You know nothing about being afraid.
It is terrifying to face the unknown
Like a child plagued by recurrent nightmares
Only it is more likely your fears will come true
Than that you will discover a monster hiding under the bed
What will they find? What will you do?
Potential answers fill you with dread
And worst-case scenarios displace all other thoughts.
What do you know about uncertainty?
About constantly questioning what the future holds?
Being too afraid that a bad day is on the horizon
To enjoy the good days
Having life controlled by your bowel habits
My world has changed so much in three short years
You know nothing about ambiguity.
I've already scoped out this unit
For the nearest bathroom, just in case
Three years ago I wouldn't have needed to
But now I know symptoms always lurk in the shadows
I try to appreciate the good days as a blessing
But sometimes they just make the bad days
Seem that much worse by comparison.
What do you know about how to reassure me?
About how to empathize with patients?
You nod your head
Say you're sorry
Claim to understand
Do you really?
You know nothing about what I'm going through.
I wish I could take off my white coat
Sit beside you and confess everything
Tell you that I know plenty of things about illness
Never covered in our curriculum
Because I'm living through it too.
Tell you I know how difficult your life has become
Sometimes I think being a patient is harder
Than learning to be a doctor.

Aaron Crosby has been writing stories since he was a child.

■ student winner

Aaron Crosby

University of Minnesota

Aaron Crosby comes from a family of storytellers. As a child, he frequently spent part of his summers with his mother's family in southeastern Minnesota. He remembers sitting around the kitchen table listening to his aunts, uncles, cousins, and grandparents tell stories. "That's part of where my love of stories comes from," he says.

Crosby, who just finished his first year of medical school at the University of Minnesota, started writing his own stories as a child. "When I was born, my parents got me a subscription to *National Geographic.* I would flip through the articles and look at the pictures and try to write my own books and draw pictures to go with them. I realized after a while that my pictures were horrible, but the stories were fun to write, so I stuck with that."

In high school in Shakopee, Minnesota, Crosby thought he wanted to be a history professor; but he changed his mind after writing his senior thesis on avian influenza. He decided instead to major in microbiology at the University of Minnesota.

Although he admits he didn't have much time for writing as an undergrad, he has made it a point to carve out time to do so as a medical student (he helped start an online literary journal for students in his class). "It's nice to flex a creative muscle after studying science all the time," he says. He also made time to visit his grandfather, the subject of his winning essay, "The River."

Crosby's story is an amalgamation of two trips he made to Minnesota City this past year to visit his grandfather and to hear his stories about life as a towboat pilot on the Mississippi River. "Every time I go down there, he gets out this binder of newspaper clippings from when he worked on the river," Crosby says. "He has pictures of boats he was on or of him on boats. He picks a couple each time to tell us about."

Crosby says his ultimate goal is to record some of his grandfather's stories to keep them in the family. "That was one of my inspirations for this piece," he says.

During his break from medical school this summer, Crosby says he hopes to do more writing. He also plans to start the summer with a visit to his grandfather, to hear and capture more of his stories of life on the river.

The River

| By Aaron Crosby

"Well, I should probably be headed back up to the Cities."

This is always one of the hardest things for me to say at this place, my grandfather's house. Growing up, I spent many happy days here—eating raspberries and getting scratches all over my body from crawling around in the brush on top of his hill. When I started college, my visits became shorter and less frequent. Boundless, shapeless, and indefinable as time is, it became parceled into three-month portions, which were subdivided into unrelenting exam periods. Still, at the completion of any one of those periods, I would hop in the car with my family and ride down the Mississippi to see Grampa.

Now, the races I run are much longer indeed. As a medical student, they have stretched from scholarly 5Ks to marathons, and there is only the prospect of them getting longer. Correspondingly, I only journey down to see him a few times each year. The visits are different now, too. No longer do I visit for a week at a time and spend the days exploring the countryside and watching baseball. Instead, I come for a day to chat and maybe watch a Western.

This is why I hate myself so deeply when I have to initiate the leaving part of the visit. His house is empty now. My grandmother, his horses, and lastly his dog have all departed his halls for more heavenly ones, and he now goes to bed and wakes up each morning alone. As I

begin to put on my heavy winter coat, I feel as if I'm abandoning him.

"Oh, hold on just a second, boy. I got something for ya," he says with a cackle. Despite the fact that there is always a vein of sadness laying in every departure, he brightens at the prospect of having something to give me. I pray it's food.

"Here ya go. This here is a pot roast. Good stuff. You put that on a dinner roll with a bunch of barbecue sauce, and boy, you got yourself a sammich. Say, boy, you need some rolls?"

"No, no Grampa." I laugh and then ask, "Aren't you not supposed to be eating stuff like this, though? Aunt said we should watch what we bring you. She worries about you."

"She wants me to eat cardboard is what she wants. You don't worry about it. Just eat this, it'll make you strong like bull."

I smile and nod and accept the Ziploc bag full of leftover beef, a tender gift in every sense of the word. I look from the saltless mass, a consequence of Grampa's DASH diet, and open my mouth to say something clever, but my wit fails me. "Thanks, Grampa."

"Say hi to that little sister of yours if you see her," he says. He follows me out of the house that he literally built with his own two hands and into the yard, passing his gardens and countless bird feeders.

It's a sight that I've never gotten used to—his tall, ursine figure hunched, his feet shuffling on the uneven sidewalk as he works to avoid tripping. Those feet confidently strode across the rolling decks of many riverboats. They were first the feet of a crewman, then a mate, and finally a pilot. That is why my mother calls him "Captain." He has always been—and will always be—mythical to me, large and invincible. At an age when most have lost their fight with mortality and those who haven't require the doting attention of a nursing home staff, he still rises before the sun to hurl hunks of firewood into the furnace that heats his home. He is not a lion, or a wolf, or a steadfast rock—all titles that have been ascribed to men of greatness. He is the River. He is steady, and powerful, and calm. He proceeds from his origin to his ending with purpose and force and requires the assistance of no man to do so.

Which is what I fret over most, I suppose. Every time I snap my seat belt into place and look out the window to wave goodbye, I try to drink in the River. He always stands there, just inside the gate, to give me one last farewell gesture. Sometimes, if I look closely, I think that I can see a hint of moisture in his eyes, a tinge of redness belying the sadness beneath.

I know that there is more he would like to tell me. I wonder if he knows that I prize his stories. His memories are like grains of sand in an hour glass that cannot agree on which should be allowed to fall first. They must be prompted by something—a photograph of an old building, a drive down a back road, a pitcher who throws a knuckleball.

Every time I leave, I think that both of us expects it to be the last time we will see each other. Standing here today, I want to grab him and demand he tell me everything, but I cannot think of how to begin.

When I get home, I know I will walk in the door and make my way to the kitchen to start my coffee percolating before I even take off coat or set down my bag. I will seek to save every loose scrap of time I can for studying upcoming exam material. I scare myself briefly by considering laminating my notes so that I can use them in the shower. When exams are over, I will surely take days to catch up with my girlfriend, and there will be reunions with parents and nights of laughter with friends.

And during all of this, the River will continue to flow silently on.

In clinic, I spend hours questioning patients about their history, their family's history, their moods and fears. Yet, placed before my own grandfather, I have not been able find the words to plainly ask such things.

My seat at the library is ringed by stacks of books, each filled with the toil of an individual's lifetime of dedication to scientific inquiry flattened onto sheets and bound fast with paste. They hold the tales of our society's greatest discoveries and serve as a timeless catalog and history of thought. There's no permanent record of the River, however, who can only pour into me his thoughts. I must be his pages and binding.

On this day, as we reach the end of his yard, I fill myself with resolution. I pause at the gate and turn around. "Grampa, wait," I say. "Before I go, could you tell me a story?"

Caught off guard, he is silent a moment before asking, "Well, sure. What about?"

I already have an answer.

"The River."

William Shores has wanted to write about the patient who was his inspiration for his poem "Hospice" for years.

■ physician winner

William Shores, M.D.

William Shores, M.D., didn't set out to become a poet. About a decade ago, the semi-retired family physician discovered by accident he liked to write. Then the lead physician at the Mayo Clinic Health System's St. Peter Clinic, he was looking for a way to share his ideas and values about work with his colleagues. He tried what he calls a "Walmart-type" morning meeting, but staff were too busy to attend. So Shores began putting his thoughts into words and sending email missives he labeled "A Good Monday Morning." "I would write this paragraph, which was sometimes whimsical and sometimes serious," he says. "Always there was a little message hidden it."

Shores found he enjoyed the process of writing and began experimenting. He eventually decided he liked poetry. "You can get a story told in a small amount of words," he says. "It feels natural to do that."

Now 63, Shores serves as medical director for the Benedictine Living Communities and Good Samaritan Nursing Home in St. Peter and has more time for wordsmithing. He's joined a writing group that meets once a month. Members critique each other's work. And he's taken to carrying around a little notebook, in which he jots down ideas, analogies, and phrases during the day. "I write those down and then plug them in when I sit down to write," he says, which is usually first thing in the morning.

His poem "Hospice" was inspired by a real patient who died about 25 years ago. He's wanted to write about her for years. In March, he crafted a rough draft and then "picked at it" before sending it to *Minnesota Medicine.* "This was a story I've told before at hospice meetings—just not in this language. Those were close to her exact words: She would like to help but will have to wait until next week. She was an amazing woman."

Shores says writing now provides him with the opportunity to re-examine experiences he's had over his 33-year career. "I get [the story] down on paper and look at it from different angles," he says, noting that all physicians meet many amazing people and encounter many moving events over the course of a career.

"That's the thing," he says. "Some of these stories are coming back now that I have more time."

Hospice

| By William Shores, M.D.

She was dying, of course. The signs were there for all to see.
The tumor stood proudly in the crosshairs of the once mighty Cyclotron as it blazed
With all the effect of a toy ray gun.
The metastases laughed as they drank to the dregs the poison cocktail,
Unfazed … then gave the hangover to the hostess
Leaving her tired and sick, but not without her smile.
Never without her smile.
She was dying, of course. We all knew it.
But who could tell her?
Not her husband. Their lives now one with their toddler boy
Conceived in defiance of the Intruder two years ago
And now nestled next to her on the sofa.
Not her oncologist. He wasn't immune to her smile
And was drawn into the vortex of her love and acceptance.
Do not confuse this with blind denial … you can't fully smile with your eyes closed.
"Sue, we have this group in town," I began, trying to ease into the hospice spiel.
"They volunteer to be with … people … who are … very sick."
"Oh doctor," she stopped me. "That sounds wonderful!"
Her curly haired child cuddled closer as she smiled and finished,
"But I'm too tired right now. Maybe I can help out next week … when I'm stronger."
She was living, of course.

■ physician honorable mention

Bethany, House of God

| By Jamie Santilli, M.D.

My Heavenly Angel,
Sweet daughter Bethany
Touches my cheek
Awakens my sleep
Each serene night
At two twenty two

Her wings Grace my face
With love's embrace
Attempts to erase
Worry on my face
At two twenty two

A Premature Gift from God
I could not save her
In life or death
I only did my best
To shield her from fate

I feel a breeze
Caress my earthly face
A tear rolls
To the pillowcase
I open my eyes
The clock reveals
Two twenty two

Each morning I awake to race
To care for the human race
Renewed by my Angel
Eternal Hope and Grace
At two twenty two

Perhaps in a name
Her fate was sealed
My darling Bethany
Your path revealed
Your last breath …Taken
At two twenty two

Eternal life
No Earthly strife
Enriches my life
Remembered at night
At two twenty two.

My daughter Bethany was born in 1984 at 28 weeks gestation weighing just over 2 pounds. At the time she was born, I was in medical school. My husband and I named her Bethany, which has two meanings: "house of poverty," very appropriate for medical students with incredible educational debt, and "house of God," which may have contributed by divine intervention to her long life considering all of her medical problems. She was not able to speak or walk because of cerebral palsy and experienced many other health problems caused by her prematurity. She communicated through electronic augmentative systems and was educated in the Burnsville public schools by many amazing teachers, professionals, and attendants. She enjoyed each day to its fullest, smiling and giggling much of the time. She died unexpectedly in her sleep in the middle of the night at age 19, one week prior to starting her senior year in high school.

For several years after her death, every night I would wake up at 2:22 a.m., look at my clock radio, think of my darling daughter in a much better place, not restricted by her earthly body that failed her. I would wake in the morning refreshed, ready for another day with residents, medical students, and patients unaware of the transformative depth of my understanding of personal loss and the power of resilience and purpose.

As a physician, we know life is a death sentence, yet in the United States, many fear even the topic of death. I realize now that my experience of the grieving process as a surviving parent has been eye-opening and life-renewing, and it has enhanced my ability to understand the emotions of others experiencing grief and loss.

My daughter was a blessing and in so many ways enriched my life, encouraging me to live each day to the fullest and giving me hope for a life beyond this earthly existence.

Jamie Santilli is a family physician and medical educator at the University of Minnesota Medical School. She practices at University of Minnesota Physicians' Primary Care Center in Minneapolis.

■ physician honorable mention

I Believe, You Believe

| By Marilyn Aschoff Mellor, M.D.

Like an unsecured sail
in the face of a gathering storm
she lies propped up
panting softly, skin sallow
against bleached hospital sheets.
Leukemic and rock-bottom anemic
this child of Jehovah's Witnesses
needs blood to survive.

Her jaw set father
refuses transfusions.
Her mother, drinking tears,
disappears from the dialogue.
His words, my words swirl
with all of us aware of prevailing winds.

Would they could feel the breath of God
in the court order for treatment.

I write because I love to write. There are times when certain patients leave a strong impression on me, and I find them showing up in my poetry. This was such an incident. It made me step back and consider that what I believe is but one small perspective in the grand scheme of life. The poem is still new and continues to be a work in progress.

Marilyn Aschoff Mellor practices in the emergency department at Children's Hospitals and Clinics of Minnesota in St Paul. She is a past Medical Musings winner.

■ physician honorable mention

Infertility 628.2

| By Carrie Link, M.D.

The budding and flowering of spring is here.
The rains have come and cleansed my land of sadness
Nourished me
With possibility
And yet another opportunity,
Bringing guarded hope for this next season.

Seeds are purchased carefully
With too much thought, too much preparation.
They've been collected
Inspected
Carefully chosen, selected, some rejected
For the fruits of these labors will be a labor itself.

We abandoned the natural planting
That simple commune with nature.
We adopted science to help us germinate,
Propagate,
So the shoots take root, in a complex chemical reaction that I can illustrate,
But not fully understand.

We must re-examine the growths under the microscope
With a close and attentive eye
For those buds must be appropriately grown,
To be Sown.
The sterile collection, then judicious planting of our own
Selected seeds into an impeccably fertile ground.

Rooting hormone will quicken them
As well as water and so much fertilizer.
Add the warmth and comfort of nurturing sunshine
And time.
Allow the seeds to sprout beneath the earth that's mine
Where I hold them and wait to check them for 10 more days.

When that anticipated tenth day comes, we will look
For the telltale shoot, the tiny flourishing bud
And again we'll wait,
Tensely anticipate
A natural disaster that would devastate
Me and this precious potential progeny.

Flooding maybe, a cascade of sanguinous debris.
Or an infestation makes the soil hostile to growth.
Or tornadoes twirl around my long stalks and tangle them
Condemned
To be cut, with surgical precision, from my abdomen
Which could never be planted again.

Only 40 percent of the crop will even survive that first stage.
And then will the crop bear fruit?
Will it be a peaberry, the unusual coffee bean twin
Growing within
Or a lone pineapple fruit that when
Harvested will be the height of sweetness?

I write poems in an attempt to consolidate my emotions around my role seeing patients and to record my memories of certain encounters.

Poetry conveys the profound experience of working with patients in a way that simply journaling about an encounter does not. For this particular poem, I was struck by the emotional challenges of patients at either end of the reproductive spectrum—those wanting to be pregnant but who are not, and those finding out about an unintended pregnancy. When it became my turn to experience medicine from the patient's side of the curtain, this poem just happened. It's my reflection about working with patients around the issue of fertility as well as my personal experience with it.

Carrie Link is a member of the family medicine faculty at Smiley's Clinic in Minneapolis.

7 Reasons Why Doctors Write

Physicians write for the same reasons that nonphysicians do, plus some special ones.

By Tony Miksanek, M.D.

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As a profession, physicians are a remarkable group of writers. What doctors lack in good penmanship is more than compensated for by their skill in penning stories and poems. Their literary accomplishments are even more impressive given a lack of formal training in the art of writing. Only a few physician-authors have MFA degrees. Most medical students do not major in English or literature while in college. Doctors become talented writers the old-fashioned way. They practice. They also teach themselves via voracious reading with attention to style and technique. They occasionally attend writing workshops.

It helps that doctors are immersed in stories. If the business of medicine is taking care of patients, then the currency used in the transaction are the narratives of illness told by patients and received by physicians. Doctors spend a good chunk of their professional lives listening to stories. It's only natural that doctors would retell versions of these tales or craft their own new ones.

All the elements of a story are readily available to any doctor: plot, protagonist, antagonist, setting, dialogue, and theme. Physicians witness struggle—disease, death, and suffering—all the time. Writers call it conflict. Physicians regularly observe cures, acts of heroism, and even miracles. Writers refer to it as denouement. Doctor-writers have oodles of experience to tap from. They have a rich pipeline of poignant images, unforgettable language, colorful characters, and vexing irony in any single day. In addition, physicians get plenty of practice writing and editing

Doctors spend a good chunk of their professional lives listening to stories. It's only natural that doctors would retell versions of these tales.

office notes, consultations, and histories and physicals.

There is an elite roster of physician-writers for readers to drool over. Anton Chekhov, John Keats, Arthur Conan Doyle, William Carlos Williams, A.J. Cronin, W. Somerset Maugham, and Mikhail Bulgakov are a few names that immediately come to mind. There are also many recognizable physician-writers including Michael Crichton, Robin Cook, and Frank Slaughter who may not get the love (critical acclaim) but certainly get the money (commercial success). There is a sizeable but unquantifiable group of practicing physicians who engage in creative writing without fanfare. These doctors take their writing seriously whether they consider it a hobby, diversion, or passion. I estimate that as many as 4 to 7 percent of all practicing physicians in the United States are currently working on a poem, story, or novel.

With hectic, unpredictable, and stressful jobs, why do doctors want to write? Given the demands and responsibilities associated with a career in medicine, why do so many physicians make time to write? The short answer is that doctors write for many of the same reasons that nonphysicians do: They feel compelled to write. They have something to say. They love words and language. They are excited by the process and gratified by the result. They are inspired.

Here are seven special reasons (ranked from most important to least important) why doctors write:

1. Therapy—Physician heal thyself. Nothing promotes healing like writing a poem or short story or even a single glorious sentence. Writing helps a doctor get things off their chest in a much more productive way than yelling at a nurse, ranting at a patient, or being grouchy at home. Poems and stories written as a form of therapy are easy to spot. They have a confessional quality.
2. Exploration—Doctoring is hard. Creative writing is an opportunity for physicians to make sense of what they do. Stories written for the purpose of searching sometimes have themes that focus on medical ethics and boundary issues.
3. Sharing—Doctors can pass along knowledge and experience by writing in clever and vivid ways. Humor and compassion provoke memorable moments in literature. A perfect example is *The House of God* by Samuel Shem.
4. Joy—Writing is fun. Okay, maybe not always—rewrites, editing, and the evil "writers' block." At some level (the spark that begins the project or reading the finished manuscript), there is euphoria. Would you settle for glee?
5. Honor—Writing allows physicians an opportunity to memorialize patients and colleagues. These literary works feature a fictionalized version of a character or an amalgamation of a few people. Creative writing can immortalize someone. P.S. Doctor-narrators also reap literary longevity.
6. Atonement—Doctors make mistakes. They sometimes behave badly. They have regrets. Stories and poems can be part of their penance. Think "Brute" by Richard Selzer.
7. Notoriety—Let's not lie to ourselves. Who among us would not want to be a rich and famous author? I don't know any doctors who would turn down a Pulitzer Prize, National Book Award, or an appearance on "The Oprah Winfrey Show." Good luck with that. **MM**

Tony Miksanek is a family physician in Benton, Illinois, and author of two collections of short stories, *Raining Stethoscopes* and *Murmurs*. He regularly writes book reviews for the *Journal of the American Medical Association*.

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Why We Need the Arts in Medicine

Studies show that incorporating the arts can save money, improve the patient experience—and do a lot more.

By Gary Christenson, M.D.

"We need the musician stat!" the physician called out. A young boy with severe spasticity was scheduled to receive a series of painful injections of botulinum toxin. The doctor knew that getting the boy to cooperate was always a challenge. He had a history of bolting around the room, making it difficult and time-consuming for the staff to do their work. The doctor had learned from experience that music could be used to relieve a child's fear and anxiety, be a distraction from pain, provide comfort, and increase the likelihood that the child would be cooperative during a medical procedure. And music therapy had helped this patient in the past.

Upon hearing the request, Sarah Dobbs, artistic director for the Centre for the Arts at Toronto's Holland Bloorview Kids Rehabilitation Hospital, recruited one of her music therapists and hurried to the treatment room with a drum, djembe, shakers, and guitar. Their plan was to engage the child by drumming and singing together while the physician and nurse completed the procedure. It worked.

Dobbs told me this story as I was on my way to tour the new Laguna Honda Hospital in San Francisco during the April meeting of the Society for the Arts in Healthcare. Dobbs explained that using live music had been requested previously for children when they needed an injection. However, the immediacy of this demand wasn't so typical. After all, stat requests are usually reserved for blood work, medications, X-rays, and transportation to the operating room. Dobbs' story is just one example of how the arts are becoming a regular part of daily medical practice. And it shows how physicians are coming to see their clinical value.

Although some might be inclined to dismiss the arts as a triviality, luxury, or unjustified expense in a time of concern over rising health care costs, research is showing that use of the arts in health care can be cost-effective. For example, a recent study done at Tallahassee Memorial HealthCare demonstrated that using music therapy when preparing children for CT scans significantly reduced use of sedative medications, associated overnight stays, and nurse time, and resulted in a cost savings of $567 per procedure.[1] It also decreased the need for repeat CTs because of poor-quality scans. When extrapolating those numbers to all pediatric CT scans done in the United States, researchers estimated a potential savings of $2.25 billion per year.[2] Such findings support the business case for adopting arts programming in health care facilities and practices. But there are other reasons why physicians, educators, and health care administrators should become advocates for incorporating the arts in medicine.

1. Studying the arts makes medical students into better doctors.

Medical students must master an array of clinical skills in addition to an increasingly complex knowledge base. They are expected to hone their observational, listening, and critical thinking skills while expanding their capacity to empathize with the patient. To accomplish the latter goal, most medical schools have added some element of the humanities to their curricula. A number of schools have students read literature written by physicians and patients that portrays the experience of illness and treatment from dual vantage points. In our state, storytelling and theater have been used to teach students how to effectively take a medical history. Last year, for example, Mayo Medical School and the Mayo Clinic Center for Humanities and Medicine partnered with the Guthrie Theater to offer the one-week selective "Telling the Patient's Story," which drew upon improvisation and storytelling to teach students to take and report patients' medical history.

Other programs encourage medical students to relate their own experiences through story or the visual arts. For example, first-year medical students at the University of Massachusetts participate in One Breath Apart, an arts-based reflective module that has been incorporated into their anatomy class. A collection of drawings and writings generated by the students has been published by

the curriculum's director, Sandra Bertman Ph.D., in a book of the same name.[3]

Harvard Medical School has found that training medical students in the visual arts can help them develop their clinical observational skills. Students who participated in formal training consisting of art observation exercises, didactics that integrate fine arts concepts with physical diagnosis topics, and a life-drawing session demonstrated better visual diagnostic skills when viewing photographs of dermatological lesions than students who only received conventional training.[4]

The arts also can convey lessons in ways traditional lectures cannot. It isn't surprising that the top-rated lecture by first-year medical students on the University of Minnesota's Twin Cities campus for seven consecutive years was a reading of physician and playwright David Feldshuh's *Miss Evers Boys* by Guthrie Theater actors. The play, about the Tuskegee syphilis experiments, illustrates ethical issues related to informed consent and human experimentation.

2. The arts have therapeutic benefits.

When I attended medical school in the early 1980s, physical therapy and occupational therapy were the only adjunct modalities recommended for helping patients recover from disease or surgery. At the time, we knew little about art therapy, music therapy, dance and movement therapy, expressive arts therapy, drama therapy, poetry therapy, and a host of other approaches that use one or more arts modality to promote healing. Although many of these therapies originally were intended to improve the emotional health of patients, we are discovering they have other therapeutic benefits.

Museums such as the Museum of Modern Art in New York and the Minneapolis Institute of Arts have programs for patients with Alzheimer's disease and memory loss that use visual and cognitive stimuli to evoke memories. Dance has been shown to improve the mobility of patients with conditions such as fibromyalgia and Parkinson disease.[5,6]

The Dancing Heart program developed by Kairos Dance Theater in Minneapolis is offered at Park Nicollet's Struthers Parkinson's Center as well as other local long-term care facilities, adult day-care centers, and senior community centers. This evidence-based program strives to engage elderly patients and their family members and caregivers in movement through dance improvisation and story developed out of participants' own memories. "Dance" is broadly defined, and it includes rhythmic movement to music for those confined to a wheelchair. A study by researchers in the University of Minnesota's department of kinesiology found that most of the participants at a local senior center said the activities helped them stay healthy by improving flexibility, coordination, balance, and endurance. They also agreed that the shared reminiscence and discussion improved their memory and social skills.[7]

In addition, music and song have been used as an alternative means of communication for those recovering from post-stroke aphasias,[8] and a number of programs have patients in various settings create art to increase their sense of control, distract them from pain, decrease their stress level and blood pressure, and provide them an outlet for emotional exploration and expression.[9] Storytelling has been noted to improve the quality of life for cancer patients,[10] increase lung function associated with asthma,[11] and reduce symptoms and doctor visits.[12] One report noted that regularly playing the Australia didgeridoo decreased apneic episodes for patients with obstructive sleep apnea.[13] For these reasons, physicians should consider the arts among their prescriptive options and advocate for increased availability of arts programming within their institutions.

3. The arts can help prevent disease.

Physicians often find it frustrating to talk to patients about getting regular exercise. They can suggest that patients do more to increase their activity level, but patients frequently don't adhere to that advice. However, a campaign to decrease heart disease in England found that people were much more responsive to the message, "Dance makes the heart grow stronger" than to "Exercise makes the heart grow stronger."[14] Dance is one of the best ways to improve health on a number of levels. In addition to its physical benefits, dance enhances social engagement, which is important to overall health and well-being, and it's one of the best activities for delaying the cognitive decline associated with Alzheimer's disease.[15]

In addition, the arts can be used to promote public health. A great example of this was Sidewalks Saving Lives, a collaborative project of the University of Minnesota's Center for Urban and Regional Affairs, Kwanzaa Community Church, and Juxtaposition Arts in north Minneapolis, in which community members worked with artists during 2008 and 2009 to paint sidewalks with educational messages about HIV/AIDS and the importance of being tested.

4. The arts can improve the patient experience.

Until recently, the design of modern health care environments has been primarily based on efficiency, prevention of infection, accommodation of new technology, and cost savings. However, a body of research has shown that patients tend to be less stressed, less anxious, require less pain medication, and ready for discharge earlier when their environment includes views of the natural world.[16,17]

The effects of various forms of visual art are being studied so that hospitals select the most healing images for patient rooms.[18] Although preliminary studies suggested that representational art depicting landscapes is the most welcomed and healing choice,[19] others have questioned whether this view is too limiting.[20] Considering the subjective nature of art appreciation, many hospitals including Bethesda Hospital in St. Paul allow patients to choose art pieces that will grace the walls of their room during their stay. The new University of Minnesota Amplatz Children's Hospital even allows children to choose the color of the lighting in their room.

Bedside visits by musicians and artists also distract children from pain and help them explore their feelings about their illness. Mayo Clinic's Art at the Bedside Program engages professional artists to work with patients to create art using watercolors, colored pencils, and clay, as well as authors and poets to guide patients in journaling and writing poetry and memoirs. Likewise, musicians play in Mayo's patient and family lounges as well as in hospital rooms.

5. The arts can promote physician well-being.

The arts have soothing, reflective, and restorative powers that can counteract the stresses associated with medical school or practice. Although many physicians were involved in the arts before entering medical school, they put those activities on hold during their training. University of Minnesota medical students have an opportunity to keep those interests alive through the Robert O. Fisch Art of Medicine program. The program, named for the well-known local artist, writer, and retired pediatrician, provides students with a small financial award to pursue and develop their interests and skills in such diverse areas as painting, drawing, singing, clowning, photography, and playing an instrument as a way to find relief from the rigors of medical study.

For many of us practicing physicians, pursuing the arts can help us rebalance our busy lives. Art provides not only an opportunity to explore and express our feelings but a respite from the heavy responsibilities inherent in our profession. It also provides us with a chance to develop our creative potential.

Given the growing evidence of how the arts can improve clinical skills, promote healing and prevent disease, increase patient satisfaction, and help us find balance in our own lives, physicians should be advocates for the arts in general and, more specifically, in medical education and practice. **MM**

Gary Christenson is director of the mental health clinic at the University of Minnesota's Boynton Health Service and president of the Society for the Arts in Healthcare.

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Index of Advertisers

Tularemia in Two South Dakota Children

By Nadia A. Sam-Agudu, M.D., DTM&H

■ Tularemia may be relatively rare in the United States, but physicians must be able to recognize it in order to treat it in its earliest stages. They also need to understand that most antibiotics are not effective against the disease. This article presents two cases of tularemia infection among school-aged children in South Dakota who were successfully treated with IV gentamicin and oral antibiotic combinations.

Reported cases of tularemia are relatively rare in the United States. However, the risk of infection is present in almost every state. States in the South Central region have the highest rates; those in the Midwest are not as affected. Occasional outbreaks occur, and bioterrorism is an ongoing concern. Ulceroglandular disease is the most common presentation of tularemia infection. Clinicians should know that most antibiotics used in empiric treatment of lymphadenopathy in children are not effective against tularemia. A high index of suspicion and early diagnosis and treatment are key to combating the infection. This article reports on tularemia infection in two school-aged children from the same area in South Dakota who presented with strikingly similar symptoms within days of each other.

Case 1

A previously healthy 5-year-old Native American girl was referred by a local physician for further management of significant right cervical lymphadenopathy. The patient had not responded to standard empiric antibiotic therapy, and the adenopathy had actually progressed during the antibiotic treatments. The girl lived on a reservation in northeastern South Dakota. About four weeks prior to hospital admission, she experienced intermittent fevers that lasted about one week. A deer tick (*Ixodes scapularis*) was found on her right parietal scalp one day after the fevers started. A large papule had developed at the site of tick attachment. During the first week of illness, she developed mild cervical lymphadenopathy on the right side. She did not have any myalgias, arthralgias, or rash.

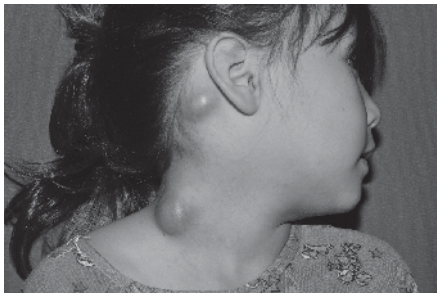
During initial evaluation on Day 3 of her illness, her complete blood count (CBC) was unremarkable. Lyme disease was suspected, and she was treated empirically with 14 days of amoxicillin. However, subsequent Lyme disease titers were negative. At her postamoxicillin evaluation, the fevers had resolved, but the right cervical lymphadenopathy had worsened. The tick attachment site on her scalp was larger and more erythematous. She was given five days of azithromycin to treat cellulitis and/or cat-scratch disease (*Bartonella henselae* infection). There was no improvement, and the cervical adenopathy progressed even further. There was no spontaneous suppuration.

After four weeks of illness and no response to amoxicillin or azithromycin, the patient was hospitalized for further management. Her Lyme disease titer was rechecked on admission and was again negative. On physical exam, she had impressive cervical adenopathy (Figure 1a) on her right side that was semifluctuant and mildly tender to palpation. The tick attachment site on the patient's scalp was now ulcerated (Figure 1b). Pediatric infectious disease and otorhinolaryngology consults were obtained. Given the patient's history and presentation, physical exam, previous laboratory results, and lack of response to antibiotics, tularemia was suspected. Her chest X-ray was normal, as was tuberculosis skin testing. Lymph node aspiration was performed by the otorhinolaryngologist; gram stain and cultures were negative. The microbiology laboratory personnel had been alerted to the possibility of tularemia. A peripherally inserted central catheter (PICC) was placed, and IV gentamicin was initiated, pending results of *Francisella tularensis* serology. The patient's *F. tularensis* titers were markedly elevated at 1:5,120 (>1:160 is positive). *Bartonella henselae* serology was negative. The patient was discharged from the hospital after two days. She received a 10-day course of gentamicin, with an additional 10 days of oral doxycycline for a satisfactory response and resolution.

Case 2

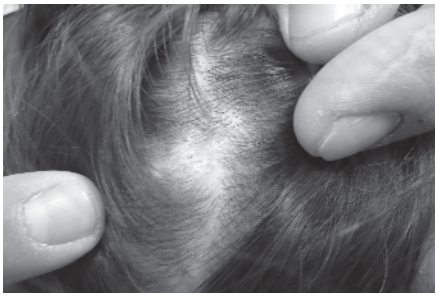
Exactly two weeks after the first patient was admitted, the same physician referred yet another patient for manage-

Figure 1a



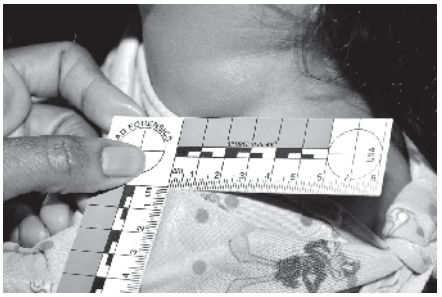
The patient in Case 1 had impressive cervical adenopathy on her right side.

Figure 1b



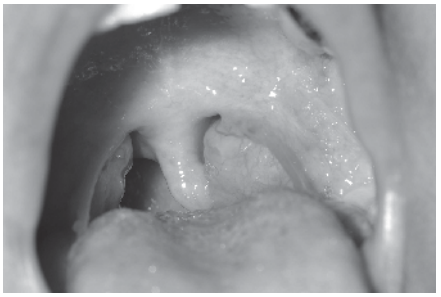
The site of the tick attachment, which became ulcerated.

Figure 2a



The patient in Case 2 had cervical adenopathy on her left side.

Figure 2b



The patient also had an enlarged left tonsil.

ment of a similar-looking left cervical adenopathy. Given the first patient's diagnosis, the physician already suspected tularemia prior to the transfer. Patient No. 2 was a previously healthy 6-year-old girl, also Native American, who lived on the same reservation as Patient No. 1. The children were not related, nor were they acquainted with one another. Neither had traveled significantly, been swimming in lakes or rivers, or been in contact with domestic or wild animals prior to the onset of symptoms.

The second patient's symptoms started within three days of those of Patient No. 1. By the time the former was admitted, she had been ill for almost six weeks. She also had fevers during the first week of illness.

The girl was initially evaluated for large tonsils and odynophagia, and was prescribed amoxicillin for acute tonsillitis, even though rapid group A streptoccocal testing on a pharyngeal swab had been negative.

On postamoxicillin evaluation (two weeks into her illness), the odynophagia and fever had resolved, but she had developed tender left cervical adenopathy. A "bug bite" associated with tenderness and swelling was discovered on her left occipital scalp. No tick was found. She was prescribed oral cefdinir for bacterial cellulitis and cervical adenitis.

The left cervical adenopathy progressed during and after the cefdinir course. She did not report any myalgias, arthralgias, or rash. She was re-evaluated in the clinic on the day prior to admission for progressive left cervical adenopathy. Her CBC was unremarkable. Erythrocyte sedimentation rate was 51mm/hour. Lyme disease and Epstein-Barr virus titers were negative. Given the similarity of her symptoms to those of Patient No. 1, *F. tularensis* titers were sent, and she was transferred to our institution for PICC line placement and initiation of gentamicin therapy. Her chest X-ray on admission was negative, as was her tuberculosis skin test. The patient's exam findings were similar to those of Patient No. 1 (Figure 2a); additionally, she had an enlarged left tonsil (Figure 2b). *Francisella tularensis* titers were elevated at 1: 2,560. Patient No. 2 received 17 days of IV gentamicin and 10 days of oral ciprofloxacin before her symptoms resolved.

At about a year post-treatment, there have been no reported relapses in either child, nor have there been any known pediatric tularemia cases from that particular reservation since these children were evaluated.

Discussion

Tularemia (also known as rabbit fever, deer-fly fever, or meat-cutter's disease) has become a relatively rare diagnosis in the United States. The annual number of reported cases ranged from 300 to 900 from the 1950s through the mid 1960s; since 1985, the number has averaged between 100 and 200.[1] However, the risk for infection continues to be present almost everywhere in the country; tularemia has been reported in every state except Hawaii.[1] States in the South Central United States such as Arkansas and Missouri have the highest rates of endemic tularemia. States in the Midwest generally have much lower reported rates. Of note, South Dakota was in the top five states for reported tularemia cases from 1990 to 2000, and from 2000 to 2008.[1,2] When compared with other Midwestern states, South Dakota (population 819,000) had 62 cases of tularemia from 2000 to 2008, Minnesota (population 5.3 million) had seven cases, and North Dakota (population 676,000) reported nine cases.[2,3] Earlier tularemia outbreaks have been reported in South Dakota, all on Native American reservations; the most recent was an outbreak involving nearly 30 cases in 1984.[4]

Tularemia typically presents as an acute febrile illness, with or without obvious physical findings. It may present as ulceroglandular or typhoidal disease, with or without pneumonia. Patients with ulceroglandular tularemia may present with a tender maculopapular lesion at the bite/contact site that ultimately ulcerates. They also may have impressive regional adenopathy. As with our two cases, the majority of patients (approximately 75%) present

with ulceroglandular disease.[5] Typhoidal tularemia occurs in about 25% of patients; it manifests with high fever, splenomegaly, hepatomegaly, and enteritis.

There have been outbreaks of tularemia in various parts of the United States and around the world, especially in Europe. Patients may contract tularemia as a result of bites from or contact with rodents and lagomorphs, cats, contaminated meat/water, deer flies, ticks, and mosquitoes.[5] Tularemia is highly infectious; a single organism is enough to establish clinical disease.[5] Inhaled *F. tularensis* organisms may cause pneumonia, which has up to 50% mortality. As such, its potential as an agent of bioterrorism is of great concern.

In these two patients, the presentation was somewhat similar to that of standard bacterial cervical lymphadenitis, albeit more impressive. The children were ill for four to six weeks before tularemia was suspected and worked up. Fortunately, they presented with relatively benign disease, and recovered without sequelae.

Standard recommended treatment for tularemia is parenteral streptomycin or gentamicin for at least 10 days.[6] Gentamicin has been successfully used in children.[7] Oral agents such as ciprofloxacin and doxycycline are recommended as alternatives[6]; however, few clinical studies have investigated their efficacy in and ability to be tolerated by children. Snowden and Stovall recently published a retrospective review of 30 pediatric tularemia cases in Arkansas that occurred between 1996 and 2006.[8] The authors noted that children who were treated with oral antibiotics alone or with shorter courses (≤ seven days) of initial gentamicin therapy were more likely to relapse or require prolonged therapy.

Most of the antibiotics used in empiric treatment of routine infections in children do not affect tularemia, and the diagnosis is typically confirmed by serological tests. Therefore, only when a clinician specifically considers tularemia can the correct diagnosis be made and proper treatment initiated.

Children younger than 10 years of age account for a significant number of cases in the Centers for Disease Control and Prevention's surveillance reports;[1,2] in the Arkansas study, almost 75% of the children were younger than 6 years of age.[8] Clinicians caring for children in every state should be aware of the risk of tularemia and consider this diagnosis, especially when a child presents with fever, adenopathy, or skin lesions that do not respond to standard empiric antibiotics. Physicians should be especially attuned to the possibility of tularemia in subacute or chronic cases of unexplained adenopathy in children. The presence or evidence of an ulcerated arthropod, insect, or animal bite in an area that is drained by, or proximal to, affected lymph nodes is strongly suggestive of tularemia.

The toxicities, age limitations, and lack of Food and Drug Administration approval for routine use of tetracyclines and fluoroquinolones in young children may cause some providers to hesitate prescribing these medications. However, once tularemia is suspected or confirmed, appropriate initial therapy with gentamicin should be initiated. If oral therapy is deemed appropriate for continuation of therapy or if aminoglycosides are contraindicated for a patient, oral ciprofloxacin or doxycycline should immediately be prescribed for the appropriate duration[6]; the threshold for prolonged treatment should be relatively low in order to ensure successful treatment and complete resolution. The second patient, for example, required a longer course of gentamicin, perhaps because of the duration of illness (six weeks) before receiving appropriate treatment. However, both children tolerated oral antibiotics quite well, and did not experience any relapses.

When compared with Snowden and Stovall's review (which reported an average of three inpatient cases a year in Arkansas, a highly endemic state), the diagnosis of two pediatric cases of tularemia within two weeks of each other in the Midwest suggests that the incidence of tularemia may be higher than reported. Cases may present in clusters, perhaps based on tick populations and/or greater seasonal exposure to ticks. Therefore, as much as tularemia is relatively rare in the Midwest, an unacceptable number of cases may be missed if clinicians are not aware of the almost universal risk in the United States.

For clinicians who identify a case of tularemia, evidence-based data on treatment of pediatric patients will likely reduce complications and result in the best outcomes for those patients. Some of the greatest gains may be made in providing evidence for clinicians who may otherwise limit doxycycline and ciprofloxacin therapy in children who may need prolonged treatment. Rigorous, multicenter clinical studies on the efficacy and toxicity of tularemia treatment options and combinations would be extremely useful to pediatric providers treating patients with the infection. **MM**

At the time of writing, Nadia Sam-Agudu was a clinical assistant professor of pediatrics at the University of North Dakota School of Medicine and Health Sciences in Grand Forks, and a pediatric infectious diseases specialist with Sanford Children's Hospital and Clinic in Fargo. She is currently the technical advisor, pediatrics, for the Institute of Human Virology in Nigeria and an adjunct assistant professor of pediatrics at the University of Minnesota Medical School.

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■ Snapshot

This photo was taken in a rural Maasai village in Tanzania that was situated outside the bounds of available health care. Jeremiah Eisenschenk, M.D., then a University of Minnesota medical student, and a fellow student had just completed a health assessment on the family, who lived in the *inkajijik* (Maasai for home) when the mother whispered in Maasai, "Wait, there is one more," and placed her 3-week-old daughter in his arms. Jennifer Poole, M.D., snapped the photo with Eisenschenk's camera before they proceeded with the examination. Eisenschenk calls the photo "Arms of Hope."