



CONTRIBUTED PHOTOS

University of Maryland Shore Regional Health's Easton neurosurgeon, Dr. Khalid H. Kurtom, third from left, and his team, which comprised, from left, in blue, surgical technologist Robert Brault, circulating nurse Suzette Jones, registered nurse and first assistant Wendy Towers and equipment specialist Steve Lykudis, are pictured with two medical staff members during an April 7 to 16 mission trip to the Istishari Hospital in Amman, Jordan.

# Mission of mercy to the Middle East

Neurology team travels to Jordan, performs 22 complex surgeries on Syrian refugees in five days

By KATIE WILLIS  
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**EASTON** — University of Maryland Shore Regional Health's Easton neurosurgeon, Dr. Khalid H. Kurtom, and his team were on the plane approaching Amman, Jordan, on April 7 when they learned of the United States missile attack on an airfield in Syria — an hour away from their destination.

"It is abundantly clear that you are not in an entirely secure location," Kurtom said.

The missile attack was launched in retaliation for chemical attacks believed to have been ordered by Syrian President Bashar al-Assad, which killed at least 70 Syrian civilians. The bombing took place in the early morning hours of Friday, April 7.

The mission team from University of Maryland Shore Medical Center at Easton — surgical technologist Robert Brault, circulating nurse Suzette Jones, equipment specialist Steve Lykudis and Wendy Towers, a registered nurse and Kurtom's first assistant — although concerned about the se-

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**Dr. Khalid H. Kurtom**  
 University of Maryland Shore Regional Health neurosurgeon

curity risks the area posed, knew they had other challenges to face first, including getting necessary surgical equipment through customs in Jordan to ensure they had what they needed to perform brain and spine surgeries on Syrian refugees who had fled war-torn Syria to live in refugee camps in Jordan.

"This whole thing has been a challenge — just setting it up in the beginning — to do a mission trip for neurosurgery. There is no example of how that's done," Kurtom said. "I looked everywhere."

The mission was organized by the Syrian American Medical Society, based out of Washington, D.C., and Kurtom, who has been practicing for 13 years, said cases included patients with advanced spine disease, people who had prior surgeries elsewhere and were devastated by those surgeries or people who had advanced disease, which was left untreated for years.

All the surgeries completed in Amman were complex, minimally invasive spine surgeries, he said.

"Whether it's the neck or the lower back, all of our cases were significantly more challenging than the ones we usually see (in Easton)," Kurtom said. "To say that the surgeries were life changing for those patients is an understatement."

SAMS funded about half the trip, and received donations from around the country.

"From the moment (SAMS) advertised that neurosurgery was going to be a part of this mission, their donations exponentially increased because of people that believed in our mission," Kurtom said.

Additionally, a budget included within the University of Maryland Medical System, which was dedicated to Kurtom as a bonus for reducing implant costs and saving UMMS nearly \$4.6 million, went to fund about half the trip, Kurtom said.

Kurtom said he personally funded part of the trip, as well, so he could make sure his Easton team was able to travel with him. Lykudis' company, Globus Medical, funded all the instrumentation taken on the trip and the grant money responsible for getting the instrumentation, Kurtom said.

"I thought it was essential to have my entire team with me because I value each of their expertise and what they bring to the team, and it's clear to all of us now why I feel this way," Kurtom said. "If you take any one of these people on my team off, this trip would have been dramatically different. I don't think we would have accomplished the things we have accomplished."

He said, overall, close to



Kurtom said one of the most technically challenging surgeries the team performed was on a man who had a bullet lodged behind the C2 vertebrae, near the top of the neck, and had not been able to walk because of the injury.



Dr. Khalid H. Kurtom, right, stands with a Syrian man in the Istishari Hospital following a brain or spine surgery which cured the man of a debilitating condition. All the surgeries completed in Amman were complex, minimally invasive spine surgeries, Kurtom said.



Dr. Khalid H. Kurtom, left, walks with a patient who came to him for a neurological procedure involving the brain or spine at Istishari Hospital in Amman, Jordan. The surgery cured her of a debilitating condition. Wendy Towers, right, registered nurse and first assistant, also is pictured.



The neurosurgery mission in Amman, Jordan, was organized by the Syrian American Medical Society, based out of Washington, D.C. Dr. Khalid H. Kurtom, who has been practicing neurosurgery for 13 years, said cases included patients with advanced spine disease, people who had prior surgeries elsewhere and were devastated by those surgeries or people who had advanced disease, which was left untreated for years.

\$100,000 went into the mission trip from the different sources, and local community members also donated toward the trip.

"This community has been fantastic in supporting this mission," Kurtom said.

After landing in Amman, the team faced its first challenge — getting instrumentation through customs — surgical instruments which already had been denied entry into the country through the pre-approval process.

Lykudis said although the equipment initially was approved with less than a week to go before the team left for Jordan, the Jordanian government soon after denied entry for all the equipment needed.

"They wouldn't allow it through

customs," Lykudis said. "So we were then one week out with nothing to bring and no instrumentation. And for Dr. Kurtom, that's tough because he's so used to certain instrumentations, because neurosurgery is so complex. When he's there with stuff that he doesn't have, it's almost brand new to him — well, it is brand new to him."

Lykudis said the team packed bags, which they carried onto the airplane, with instrumentation the team thought they may need, hoping it would get through customs. Towers said, miraculously, Lykudis, who was carrying the main bag of equipment, was waved through customs and the instrumentation made it through.

"But that's a challenge that we,

going somewhere like a foreign hospital that we don't know — we don't know what they have," Lykudis said.

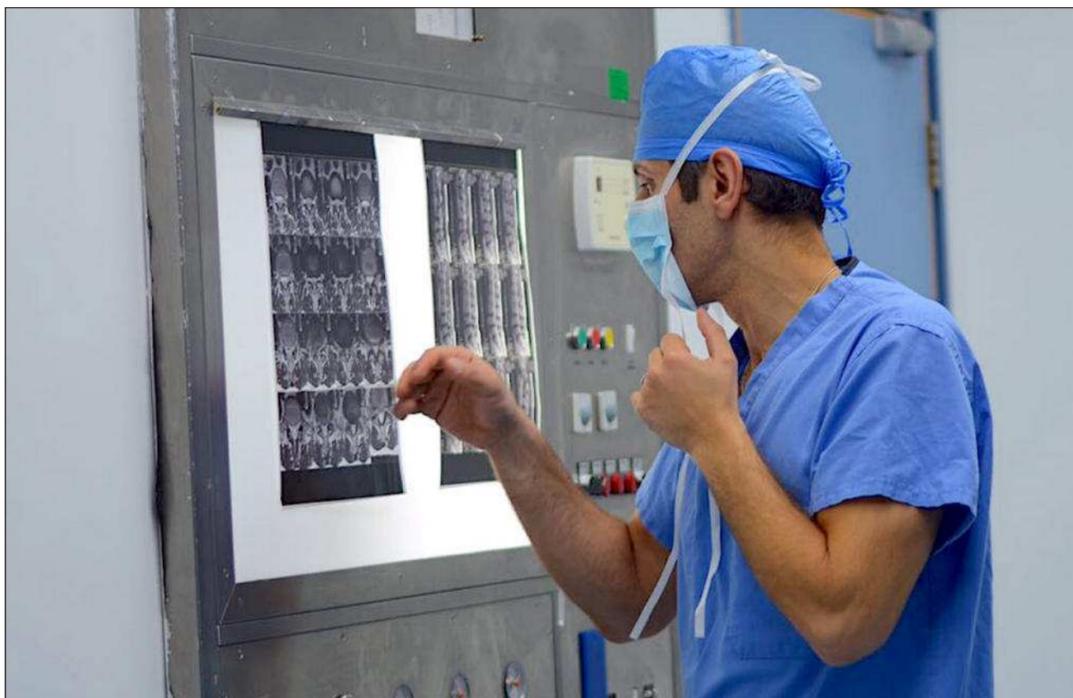
Towers said another challenge with the instrumentation centered around the language barrier. Lykudis said some equipment with one name in the U.S. had different names in the hospital in Jordan.

The team arrived at the Istishari Hospital the afternoon of April 7, prepared themselves for their first cases, and less than 12 hours later, began their first surgery.

"We literally went there blind," Lykudis said. "The first day we got there, we were up for



Dr. Khalid H. Kurtom said he has followed up with each of the 22 patients he operated on during a medical mission trip to Amman, Jordan, since he has returned to work in Easton, and each is doing well.



Dr. Khalid H. Kurtom, a neurosurgeon with the University of Maryland Medical System, who works at Shore Medical Center at Easton, is shown looking at films before a surgery during an April medical mission to Amman, Jordan. The doctor and his team from Easton performed surgeries on 22 Syrian refugees in five days.

## MISSION

From  
Page C1

probably 30 hours straight, and we went right to the hospital and ransacked everything they had and opened up everything they had and got our eyes on (the instruments)."

"We just destroyed their trays and made them into something we thought we could use," Towers said.

"(The hospital and its staff) welcomed us with open arms," Jones said. "If there was something we needed and we didn't have, they had it within hours for us."

The team's initial goal was to perform 30 surgeries in six days, but because of the triage process, or the process of hospital staff determining the priority of patients' treatments based on the severity of their condition, several patients were excluded from surgery.

In the three months prior to the trip, Kurtom said he saw close to 150 potential cases, which required close evaluation of each case and the patient's "films," or x-rays. He said he eventually selected 35 surgical candidates, and out of the 35 selected, 22 actually qualified for surgery based on the team's observations upon arrival at the hospital.

"Others were either too far advanced or had medical issues that precluded them from having surgery," Kurtom said.

The team ended up performing 22 surgeries in five days. Towers said they performed about five surgeries a day, and surgeries took approximately two hours each. Each of the patients Kurtom and his team worked with impacted them, they said.

Lykudis said the patients who were told they would never walk again did not believe Kurtom when he asked them to get up and walk following surgery.

"Some of these patients, they're told they can never walk again, and not to have surgery," Lykudis said. "And then, two hours after surgery, Dr. Kurtom tells them to get up and walk, and they're like, 'I can't walk,' and they get up and walk. It's pretty incredible."

Towers said, through the team's experiences performing surgeries at Shore Medical Center at Easton, most patients are able to go home the next day. She said, while in Jordan, the hospital and the patients could not believe most patients would be leaving the hospital fully cured the next day, and were astounded they would not have a lengthy hospital stay or have complications from surgery.

"They were just overwhelmed that (they) got to go home (immediately)," Towers said. "That was a great feeling to show that that could happen there, too. It's like you just take here, and you go there, and you can do the same things and have the same outcomes, and people can go home the same day."

Kurtom said one of the most technically challenging surgeries the team performed was on a man who had a bullet lodged behind the C2 vertebrae, near the top of the neck, and had not been able to walk because of the injury.

"Because of the location of the bullet, it was in an area where there's a lot of eloquent anatomy, that if any of it is injured, it would have been devastating," Kurtom said.

He said, during that surgery, the team was able to successfully remove the bullet and the patient left the hospital within an hour after surgery, pain free and walking, and went back to his life.

"He's fully cured now," Kurtom said.

Kurtom said discussing the surgeries beforehand with patients was a challenge because of the language barrier and cultural differences.

"It's very difficult to do that with a translator," Kurtom said. "The issue of the rapport and the trust is huge — they give it to us willingly ... But their expectations were



From left are registered nurse and first assistant Wendy Towers, neurosurgeon Dr. Khalid H. Kurtom and surgical technologist Robert Brault during a surgery that took place during a medical mission trip to Amman, Jordan, organized by the Syrian American Medical Society.

really dire."

One patient was the sole provider for her family of six children, Kurtom said. Her job was to carry items, primarily using her head, which had caused advanced cervical spinal cord impingement and lumbar stenosis, and had affected her ability to walk.

"They were desperate and they were signing up to die, as a real possibility," Kurtom said. "Most of them asked if they were going to live ... if they were going to survive the surgery. They have been so desperate ... you know, chronic pain and inability to walk ... So, for them, it was almost a chance of either living or not living. To them, they were taking a chance of life or death."

He said the woman nearly did not agree to surgery because she feared being out of work and not being able to provide for her family. She did not understand her condition would improve following surgery and she would not be out of work, he said.

Kurtom said many patients were not told much about the surgeries beforehand. They were told only to show up.

"They just showed up knowing that they're going to have a surgery that would likely kill them," Kurtom said. "And they signed up for it. That's how desperate they are."

Towers said another incident where communication came into play happened when a patient who was complaining of their left leg hurting confused the team because all the information they had about the patient, including x-rays, indicated the right leg was where the surgery would be taking place. Prior to the surgery, the team looked the films over again and discovered the image had been flipped by the Istishari Hospital's staff to provide a clearer photo for Kurtom (the original had been obscured by a piece of paper, which is why the staff flipped the image). The team was able to catch this mistake before the surgery.

"They misrepresented the film. So, we had to change (the surgery) last minute. And here, we would have had to cancel the surgery," Kurtom said.

"It would have just been a nightmare of paperwork (here)," Towers said. "Really, it was just about the symptoms of the patient, and that goes back to communication, and you're relying on other people to triage and prepare you, and you still have to be listening to that patient."

Kurtom said he has followed up with each patient since he has returned to work in Easton, and each is doing well.

"When we first went, people didn't know what to expect," Kurtom said. "This is something that

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the medical mission  
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you see what these people are suffering from, there is no question in your mind that you would have done the same thing ... You're very sympathetic with the families and the patients who are suffering, but you realize your limitations."

"And it crushes you, because you see this father. He's so desperate, but there's nothing you can do, and your heart hurts," Towers said.

"That's the first time that we realized we need to get out of there quickly, because we're almost getting assaulted now," Kurtom said.

By the end of the mission trip, Kurtom said he had to be escorted to different doors and stairways from his team, and Lykudis even acted as a decoy on one occasion so Kurtom could leave the hospital safely.

Kurtom said there are not a lot of neurosurgeries taking place in the Middle East because of a lack of doctors to perform those surgeries and a lack of resources.

"Neurosurgery, forget about that part of the world, neurosurgery in this country — there's a huge shortage of it. And then the world, there (are) vast regions that don't have neurosurgery, because the number of neurosurgeons, we are scarce, and the resources required, not just for the surgeries, but also post-operatively and pre-operatively, is dramatic," Kurtom said.

Kurtom said many neurosurgeries require intensive care unit stays and some require a lot of post-operative care. Additionally, with all the instrumentation needed to perform those surgeries, Kurtom said, "we're talking over a million dollars worth of equipment."

"Which we have here (at Shore Medical Center at Easton). But to replicate that elsewhere in the world is very unlikely," Kurtom said. "(The Middle East) doesn't have that. That's something that requires a lot of resources and training."

Kurtom said the Eastern Shore is fortunate because it has access to neurosurgery, but many places similar to Easton in the U.S. do not have access to neurosurgery.

"There are states in this country that have two or three neurosurgeons in the entire state ... the Eastern Shore, we have five counties, and there's one neurosurgeon. So, even in this country, you would have to travel very, very far to get to a neurosurgeon, in most cases," Kurtom said.

In the U.S., Kurtom said there are anywhere from 2,500 to 3,000 neurosurgeons, counting residents and fellows. In the world, board-certified, fully credentialed neurosurgeons total between 5,000 and 6,000, he said. Of the spine-specialized neurosurgeons, he said about 5 percent do minimally invasive spine surgery.

Kurtom said what made the mission trip possible in Jordan was the fact that he was performing minimally invasive surgeries.

"We wouldn't have done the neurosurgical mission if I was doing traditional, open, neurosurgical procedures. This cannot be done overseas," Kurtom said. "I wouldn't have the same practice (in Easton). I would take half of the patients that I take here if I did my surgeries open ... Of those few (neurosurgeons) that do minimally invasive spine surgery, very few do the advanced minimally invasive surgeries that we're doing (at Shore Medical Center at Easton) ... we're doing things locally here that are different than they're being done nationally."

Kurtom said, in addition to making the trip possible, the minimally invasive surgeries are what made the mission trip successful, too.

"The standards that we have (in Easton) are different than the standards nationally," Kurtom said. "All you have to do is bring

the culture with you and the standards with you, and you can replicate it not just within the U.S., in the different cities and the different hospitals, but you can replicate it internationally, and we've proven that with this mission."

"There's no way we could have helped that many people if he wasn't the type of surgeon that he is," Lykudis said. "It would almost be impossible, I think."

Towers said, in addition to the skill of the team, the mission trip also was successful because of the accommodations and the assistance of the staff at Istishari Hospital.

"They were so accommodating and kind. And they wanted to help the Syrians. It wasn't just like it was our thing," Towers said. "Most of (the hospital staff) were Jordanian locals, and they were so happy that we were helping. And they felt a part of it, too."

Kurtom said the challenges were numerous, but the team worked together to overcome each one.

"I'm operating in an entirely different environment with instruments that I've never used before," Kurtom said. "And cases that are dramatically more complex than here ... You're in the street and you see armored vehicles with men with machine guns standing on top of them, so the security risk is very clear ... And then the entire experience and emotions that are involved with the tragedies that we saw there and the stories that we've heard."

Kurtom said it will take the team a long time to process everything they went through in Amman.

"There are just so many things that each of them would take us so long to absorb, but we faced it all in a very short period of time," Kurtom said.

"And we faced everything, every single day," Lykudis said. "When we got back ... you've got such an appreciation of what we have here ... there's no doubt we're all better people now, coming home, than we were before we left."

Kurtom said he realized "how blessed we are in this country, living here — and this town — living here."

"Everything that we perceive to be a problem, the majority of these things are not true problems. These are our misconceptions of our reality. There are real problems in the world, and I can tell you that we don't see any of them," Kurtom said.

Despite the challenges, Kurtom said the team would like to go on another mission trip in the future.

"I don't think there's any question that we're going to do this again," Kurtom said. "Now that we've gotten this under our belt, we are much better equipped to do this better and be even more effective at it. The question is timing."

Lykudis said going back to "normal" has been tough.

"Getting back to your normal life, after what we've experienced, is tough," Lykudis said.

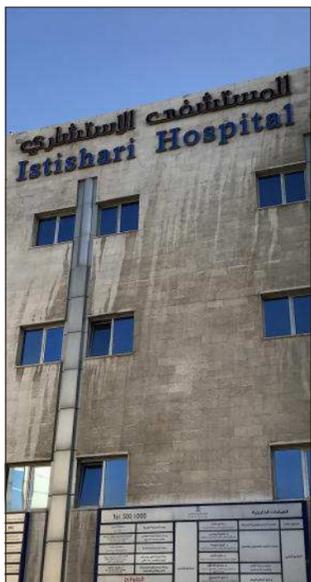
Kurtom said the trip has helped him to understand more about what military veterans must go through following their service to the country.

"It's not a realistic expectation. The people that are serving in our armed forces, what they've seen and gone through, almost precludes them from coming back to a normal life. This is why I have the utmost respect and love for them," Kurtom said.

"You don't get to live this life and see those parts of the world and be OK," Kurtom said. "The blessing that we had, is that we had each other as a team."

Kurtom will speak to the public about his neurosurgery mission trip to Amman, Jordan, at 7 p.m. Thursday, June 29, at the Todd Performing Arts Center at Chesapeake College. For more information or to reserve a space at the event, call Cindy Yost at 410-820-9117, ext. 4144, or email [cyost@umm.edu](mailto:cyost@umm.edu).

Follow Katie Willis on Twitter @kwillis\_stardem.



Shore Regional Health's Easton neurosurgeon, Dr. Khalid H. Kurtom, and his team of four from Shore Medical Center at Easton performed 22 surgeries in five days at the Istishari Hospital in Amman, Jordan, during a medical mission trip in April.

they've not seen before ... Once people realized the outcomes and what we were doing, the next challenge that we faced is that everyone wanted to be cared for."

Kurtom said news of the team traveled quickly, and it got to a point where he was getting films thrown at him while he was on the car ride to and from the hospital. He also was getting cornered by hospital staff and from family members and friends of his now-cured patients.

He said patients were traveling back to the refugee camps and telling their friends and families how they were feeling, and people then were showing up at the hospital to try to catch Kurtom so he could treat them, as well.

"They were waiting for us to exit the hospital, so we had to find other ways to leave," Kurtom said. "The last few days were difficult in that sense, because we literally were getting bombarded."

He said it got to a point toward the team's last day where people were disguising themselves to get into the operating room to see him — one man did.

The man who infiltrated the hospital's operating room wanted Kurtom to help his 3-year-old child, who was dying from a brain infection, and the conversation between the two became confrontational, Kurtom said.

"There's no question you can empathize with that — if that was me on the other end of this," Kurtom said. "None of us really got upset with any of this, because when