

# THE DOCTOR

will see you now...offshore.



**T**ELEMEDICINE HAS ARRIVED OFFSHORE BENIN THROUGH AN INNOVATIVE MEDICAL SUITE ABOARD THE NOBLE GLOBETROTTER II.

Imagine a crew member walks into a clinic complaining of abdominal pain and drowsiness. This could be symptoms of the onset of a mild stomach flu that typically passes in a day or two. They can also be the warning signs for something much more serious, such as diabetic ketoacidosis (DKA), an emergency condition caused by untreated hyperglycemia. Unaddressed, ketoacidosis can be a life-threatening situation for those with diabetes.

Quick action by a trained medical team can, in a word, save the patient's life. Onshore, that usually translates into a trip to the emergency room. **BUT WHAT IF THE NEAREST HOSPITAL IS TWO HOURS OR MORE AWAY BY HELICOPTER? CLEARLY, TIME IS OF THE ESSENCE AND DELAY IN GETTING A DIAGNOSIS IS THE ENEMY.**

“The issue we face is that while we have made great progress in occupational and process safety, there will always be personal health and wellness issues facing our crew members,” says **Jarrett Marsh**, HSE & Q Manager with Noble’s Engineering department. “Just like in the general population, our crews will from time to time face health concerns requiring attention. How to address those concerns, sometimes in remote settings, is the challenge.”

Since the earliest days of offshore drilling, rigs have been equipped with a full array of first aid supplies and, in more modern times, a highly-trained medical support person to address immediate care needs. As rigs grew more self-reliant, the position of “ship’s medic” became more formalized and qualifications more stringent.

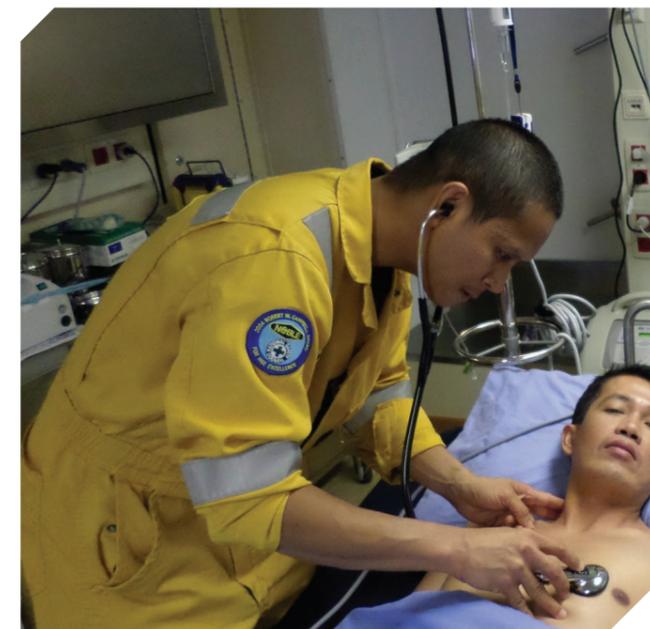
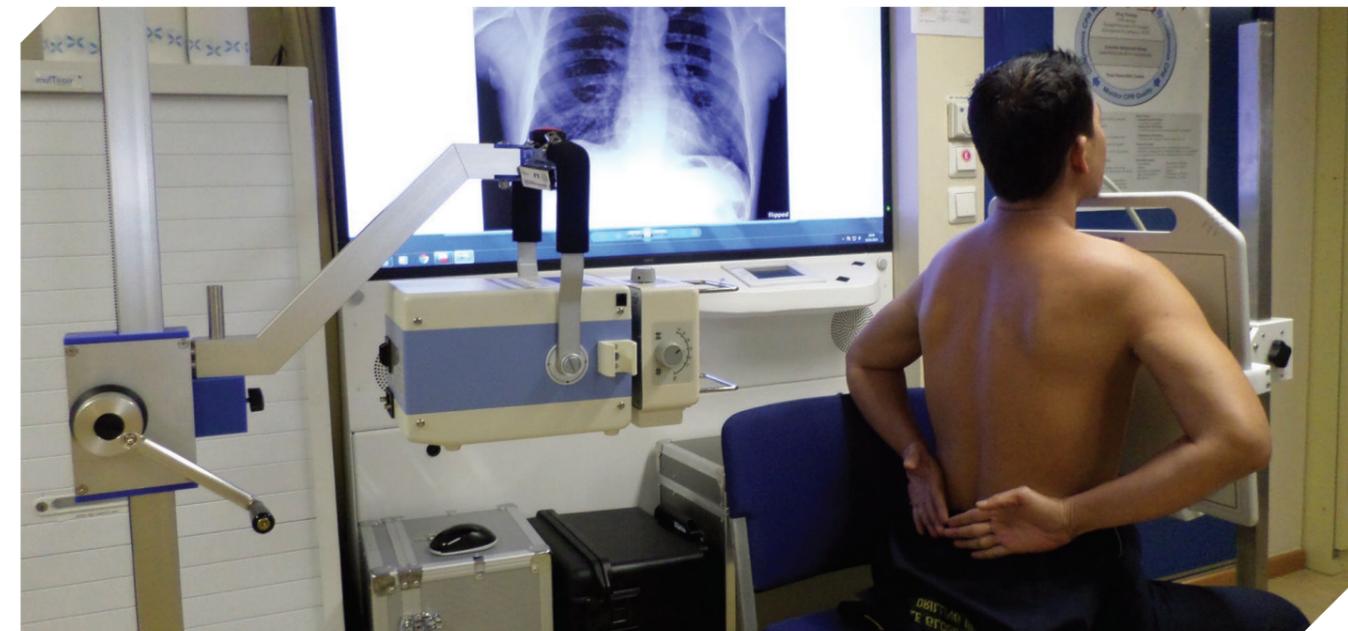
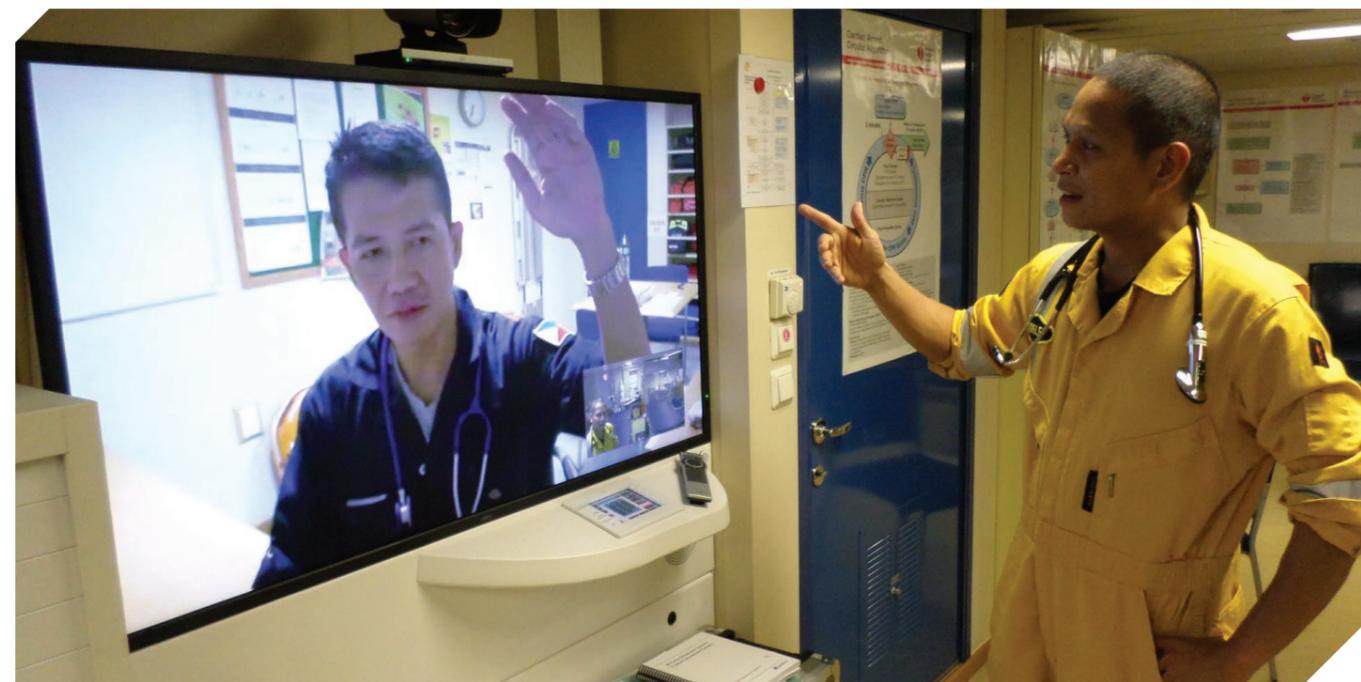
Today, the typical rig in Noble’s fleet is well equipped to deal with the day-to-day medical needs of the crew. Should more intense treatment be needed, “medevac’ing” a crew member to shore may still be the best option—provided onshore treatment is readily available. For operations in more remote or distant locations that can prove to be a problem.

### Finding a Better Way

From the outset, Noble’s Globetrotter-class vessels were always envisioned as being highly-capable units that could be deployed globally. The *Noble Globetrotter I*, launched in late 2011, is today working in the U.S. Gulf of Mexico, where helicopter service and hospital facilities are easily accessed. Its sister rig, the *Noble Globetrotter II*, a newbuild drillship launched in 2013, is located more than 3,000 miles away offshore Benin, a country where support services are less well developed.

In considering onboard medical and first aid services for the *Noble Globetrotter II*, Noble and its customer, Shell, have taken those services to a whole new level. On that drillship an onboard professional team and ready access to “telemedicine” are helping crew members address both routine and many non-routine medical concerns—without the need to leave the rig.

Long before the *Noble Globetrotter II* completed construction in the port city of Schiedam, The Netherlands, a joint effort between Noble, Shell and Louisiana-based XstremeMD began collaborating on enhancing diagnosis and medical treatment capabilities to be housed aboard the rig.



### Taking Shipboard Care to the Next Level

“This all started as a requirement from Shell for the *Globetrotter II* working in West Africa,” says **Diego Arana**, who served as Noble’s Drilling Superintendent for the rig. “While that was where we started, I believe we have achieved something that’s a step-change for the industry.”

The origins of the *Globetrotter II*’s medical program grew out of a somewhat casual conversation on the sidelines of the Institute of Remote Health Care

Conference, held in Bergen, Norway, where Dr. Joseph Pearson, President of XstremeMD, and 79 other remote health care experts came together to discuss advances in remote health care.

The Remote Health Care experts were assigned the task of developing a set of on-site health recommendations for all companies and organizations deploying their workforce into more and more remote environments.

“While participating in the conference, I met Christian Gorgas, Shell Regional Health Manager, Nordics and Hans Berg, Shell Global Health Lead Projects & Technology,” recalls Dr. Pearson. “They were responsible for ensuring quality health care on board the *Globetrotter II* and approached XstremeMD for our assistance.”

Using the recently published guidance document from the Bergen conference, and in collaboration with Jarret Marsh, Noble; Dr. Joseph Pearson, XstremeMD and Ketil Vindenes, Viju, we began the process of planning the services that could be needed on board the rig. This process included planning and prevention, on-site personnel, equipment and supplies and remote/topside support.

“Said simply, the *Globetrotter II* as one of the most technically advanced infirmaries among drillships in service today,” says Dr. Pearson. “It is staffed with a physician and nurse 24/7/365. We are able to perform on site X-Ray, Ultrasound, and blood draws. When needed, the on-site health professionals have additional topside medical expertise within seconds of a push of a button. With these advancements, the emergency response plan now allows the on-site and topside medical support to treat and stabilize patients on board the drillship for extended periods of time without having to rely on risky and sometimes logistically impossible emergency

medical evacuations to substandard health care facilities on the beach.”

“In the first year of operations, I believe we have clearly shown how valuable this program is and how it can work particularly well in remote locations. What we have put in place here is a great example of collaboration that is literally rewriting the book on remote health care aboard offshore drilling rigs,” says Marsh. “I believe you will find that all parties who are involved with this project are extremely proud of what has been accomplished.”

## CASE STUDY

As a recent example, a crew member presented to the infirmary with nausea and vomiting. Laboratory data revealed the patient to have a life threatening blood sugar level of greater than 600. To complicate matters, the patient had no history of diabetes and additional laboratory data indicated he was in diabetic ketoacidosis. Emergency medevac was not an option. On-site health professionals, Dr. Abril Capistrano M.D. and Marco Bonto R.N., immediately began life saving treatment with fluid resuscitation.

Within minutes, via telemedicine, they consulted Dr. Pearson, a board certified emergency medicine physician located in South Louisiana, for additional guidance with regards to electrolyte management, insulin doses and drips, fluid replacement, urinary output etc.

Over the next 12 hours, the patient received better and more immediate health care on board the rig than he could have received in any available local health care facility on the beach. Ultimately, the patient was transported in the next day via the next available helicopter. From there he was transported and admitted into to a local health care facility nearby his hometown for continuation of treatment.

