
WORLDWIDE TELEMEDICINE

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about

A company's overall productivity directly depends upon the individual productivity of its employees. Employee illness, whether caused by an actual absence from work or a decrease in capabilities, costs hundreds of billions of dollars annually. It is imperative that employers across all industries take steps to safeguard the health of their employees both for individual benefit and for the benefit of the company overall.

In particular, illnesses and injuries sustained by employees in the offshore and remote onshore oil and gas industry can result in short or long term conditions that can prevent them from doing their job. Typical injuries can include falls from elevation, muscle strains, fractures and eye injuries. When a worker suffers an eye injury such as a corneal abrasion or burn in a remote location (as is common in the modern day oil and gas industry), it can be a stressful and sometimes costly scenario for the employee and the employer.

Worldwide Telemedicine was created with the aim of being virtually present at any medical emergency. The company's technology provides the most comprehensive medical care available in the industry, to reduce the need for costly emergency transportations and effectively manage emergencies and injuries in real-time. The company's unique turnkey system addresses the health of the employee while promoting both the accuracy and reduction of OSHA recordables. Worldwide Telemedicine's comprehensive service provides immediate response to emergency situations in the remotest of locations around the globe, and keeps employees safe and well cared for while they are performing their jobs in frequently high-risk or remote locations.

how it works

When an incident occurs, Worldwide Telemedicine physicians provide immediate consultation and guidance to on-site paramedics for a thorough and accurate diagnosis, care and treatment at the job site. Unlike other telemedicine service companies who dispatch only the telemedicine unit to a site, and therefore place the onus on an unskilled worker to operate it and initiate doctor-directed treatment, Worldwide Telemedicine's OSHA-trained, occupational medical, ER doctors are physically present near the Telemedicine Unit to answer a call when it comes through; they are more than just 'on-call'. This means there is virtually zero downtime between a call for assistance and a response from the doctor. The doctor is already 'on location' and ready to assist.

By combining the advanced training of a paramedic with on-call board certified physicians, the Worldwide Telemedicine unit functions as a "virtual doctor's office" equipped to handle several injuries without the need for emergency medical transport. Worldwide Telemedicine also increases the accuracy of OSHA recordables by engaging a case manager from the initial visit to the paramedic to record the worker's statement in real-time. The



unit is able to capture high definition images which can be sent, via HIPPA-secure transmission, for the doctor to make an informed diagnosis and for the case manager to retain on file.



about the unit

The telemedicine unit can connect to the land-based doctor on-call via satellite or WiFi. The paramedic is able to connect a variety of instruments to the unit via a USB connection, sending real-time data to the doctor on-call. This enables the doctor to diagnose and treat the patient as if he or she were in the doctor’s physical office. The various devices include: a stethoscope, an ophthalmoscope, an EKG, and a blood meter which allows the paramedic to draw the patient’s blood, analyze and transmit to the doctor for interpretation. The transmission is compliant with HIPPA restrictions and the virtual visit can be recorded for the case file, if desired. As well, the transmitted information (high definition photos, EKG reading, etc.) can be saved for the case manager’s file, increasing the accuracy of any OSHA recordables.

what makes it unique

The Doctors:

Each doctor on-call is an OSHA-trained, board-certified ER physician at Leonard J. Chabert Medical Center (CMC) - an Acute Care Hospital located in Houma, Louisiana. The medical director, Dr. Thomas Falterman, is also the medical director of Occupational Medical Services (OMS), a comprehensive occupational medical clinic specializing in pre-employment screenings, physicals, on-site services and work-related injury care and case management. With their experience and knowledge in occupational medicine and OSHA requirements, the doctors can help to avoid an unnecessary recordable and provide treatment geared toward ensuring the employee can return to work as soon as possible.

Paramedics:

The paramedics that accompany the Worldwide Telemedicine unit are specially trained and able to perform more treatments than standard EMTs. EMTs typically receive between 120 -150 hours of training and are restricted to administering IVs, oxygen, glucose, asthma inhalers and epinephrine auto-injectors. Paramedics complete between 1,200- 1,800 hours of training, a 2-year degree program and are certified to break the skin of the patient to administer shots/IVs, and perform advanced airway management to support the breathing of patients in potentially life-threatening situations. Additionally, the paramedics that

work with Worldwide Telemedicine are trained in the use of 30-40 medications that go beyond basic EMT activity.

The Case Manager:

The Worldwide Telemedicine unit has the ability to patch in a case coordinator/manager to be involved from the very beginning of an incident. This enables the case manager to record the employee’s statement in real-time and coordinate with the doctor on treatment and the employee’s return to work. Patching in the case manager in this manner increases the accuracy of OSHA recordables and prevents the events of the incident to become fuzzy or unreliable due to waiting for the employee to return from the work site before taking a statement. As well, the unit is able to capture high definition photos and information from the patient for the case file (ex: a high-resolution shot of a patient’s affected eye via the ophthalmoscope on the unit).

situational analyses

The following situations are common scenarios often encountered in offshore and remote work sites. These scenarios illustrate how Worldwide Telemedicine’s unique system can help companies save money and effectively manage incidents while providing the most comprehensive care for their employees.

CHEST PAIN

Scenario One

Patient visited the on-site paramedic with moderate chest pain. The paramedic took the patient’s medical history and immediately patched in the company’s case coordinator and rang the ER doctor on-call.

After reviewing the paramedic’s notes and patient’s medical history, the doctor directed the paramedic to hook the patient up to the EKG and began monitoring his heart rate. The EKG information was transmitted through the telemedicine unit with HIPPA compliance.

The paramedic performed point of care testing which included a cardiac blood test. The blood sample was put in a meter giving the physician a result within 5-10 minutes. As well, the doctor listened to the patient’s heart and lungs through a stethoscope hooked up to the unit.

After the testing, the doctor confirmed that the patient was not having a heart attack. After discussing with the case coordinator, the doctor directed the patient to take the aspirin that the patient had in his travel kit, thus *avoiding an OSHA recordable and an unnecessary emergency transfer.*

WORLDWIDE TELEMEDICINE		WITHOUT WORLDWIDE TELEMEDICINE	
	COST		COST
Telemedicine Unit – Day Rate	\$850	Helicopter Evacuation	\$65,000
Paramedic with supplies – Day Rate	\$700		
TOTAL COST:	\$1,550	TOTAL COST:	\$65,000



Chest Pain, Scenario Two

Patient visited the on-site paramedic with severe chest pain. The company's case coordinator was called and the paramedic immediately rang the ER doctor on-call.

The doctor was reviewing the patient's medical history and heart rhythm within minutes of receiving the page from the paramedic. The patient was connected to the EKG on the telemedicine unit and received point of cardiac care blood testing, including being hooked up to a stethoscope on the unit for the doctor to listen to the patient's heart and lungs.

Within 5 minutes of receiving the blood sample results via the Worldwide Telemedicine unit, the doctor confirmed that the patient was having a heart attack.

Emergency transport was arranged right away – however there was bad weather and the helicopter was delayed for two hours. The doctor directed the paramedic to administer an IV, heparin, oxygen, a beta blocker, nitroglycerin, aspirin, and thrombolytics. *With the Worldwide Telemedicine unit, the doctor and paramedic were able to create a "virtual ER" which saved the patient's life while waiting on transport.*

The patient was stabilized and the helicopter arrived. Once in the air, the paramedic continued to transmit information to the doctor via the telemedicine unit until arriving in the ER so the patient never had a lapse in treatment.

WITH WORLDWIDE TELEMEDICINE	WITHOUT WORLDWIDE TELEMEDICINE
A "Virtual ER" is established, administering:	EMT administers:
IV	Oxygen
Heparin	Aspirin
Beta Blockers	
Aspirin	
Oxygen	
Nitroglycerin	
TPA (if indicated)	

EYE INJURY

Scenario One

Patient came to the on-site paramedic complaining of debris in his eye. The paramedic inspected the eye which appeared irritated, but could not see any foreign matter upon a basic visual inspection. The paramedic numbed and irrigated the eye. He then notified the company case coordinator on-call, who directed him to ring the ER doctor via the Worldwide Telemedicine unit.

The patient recounted the incident with the case coordinator and the paramedic relayed his initial notes with the doctor.

Eye Injury, Scenario One, continued.

After discussing with the case coordinator, the doctor directed the paramedic to administer Fluoroscene drops and hook up the ophthalmoscope to the telemedicine unit. Receiving the high-resolution, real-time video of the affected eye, the doctor was able to inspect the eye and confirm that there was no corneal abrasion. The paramedic used the ophthalmoscope to take high-resolution photos of the affected eye for the case coordinator to retain for the case file.

After performing a visual acuity test, the paramedic administered artificial tear eye drops and the patient was cleared to return to work.

With the case coordinator involved early on and the doctor's ability to inspect the eye with high resolution imagery to determine there was no abrasion, *the company was able to avoid an unnecessary OSHA recordable.*

Scenario Two

A worker was passing by an area where another worker was welding. He was not wearing safety glasses as he was quickly passing through and was not unreasonably close to the welding. Wind picked up and a spark flew into the passing worker's eye.

The worker immediately visited the on-site paramedic who irrigated and numbed the eye. The paramedic then rang the case coordinator to record the patient's statement and also rang the ER doctor on-call.

The doctor directed the paramedic to numb the eye and hook up the ophthalmoscope to the telemedicine unit. Receiving the high-resolution, real-time video of the affected eye, the doctor was able to inspect the eye and confirm that the eye had been mildly burned by the spark. The paramedic used the ophthalmoscope to take high-resolution photos of the affected eye for the case coordinator to retain for the case file.

The doctor directed the paramedic to administer antibiotic eye drops. The patient returned the next day for follow up treatment. Via the Worldwide Telemedicine equipment, the doctor inspected the eye and determined it had healed. After the doctor's discussion with the case coordinator, the patient was cleared to return to work.

In this scenario, *the doctor was able to immediately treat and diagnose the burn without unnecessary transport and enabled the patient to return back to work with as little downtime as possible.*

Scenario 3

A patient visited the on-site paramedic complaining that something felt "stuck" in his eye. The paramedic inspected the eye and noticed there did appear to be a small piece of metal in the eye. He irrigated and numbed the eye prior to patching in the case coordinator to record the worker's statement. The paramedic also rang the ER doctor on-call.

Eye Injury, Scenario 3, continued.

The doctor directed the paramedic to hook up the ophthalmoscope to the telemedicine unit. Receiving the high-resolution, real-time video of the affected eye, the doctor was able to inspect the eye and confirm that there was a foreign object lodged deeply in the eye – unable to be removed by the paramedic. The paramedic used the ophthalmoscope to take high-resolution photos of the affected eye for the case coordinator to retain for the case file.

The doctor discussed with the case coordinator and transport was arranged to take the patient to an occupational medical clinic to have the object removed.

In this instance, *the patient was able to be transported by boat at a lower cost to the company and the foreign object was removed before the eye could heal over the object.*

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	<u>COST</u>		<u>COST</u>
Telemedicine Unit – Day Rate	\$850	*Helicopter Evacuation	\$65,000
Paramedic with supplies – Day Rate	\$700	Treatment at Occ. Med. Clinic	\$200
TOTAL COST:	\$1,550	TOTAL COST:	\$65,200

**Without a doctor to confirm an abrasion had not taken place or to treat a corneal burn, transport would have been necessary.*

conclusion

Preserving the welfare of employees with the best and most responsive medical care at all times is essential for any company to minimize downtime and protect their reputation as a responsible employer in the industry.

Telemedicine services dramatically decrease the cost of emergency medical transportations. In addition, Worldwide Telemedicine’s technology saves the client money by increasing the accuracy of any OSHA recordables and offering a turnkey service without cutting corners. When these points are properly considered, it is clear that investment in a comprehensive telemedicine service is also an investment into the wellbeing of your organization’s financial health.