



Total Telestroke solution leads to significant clinical improvement

THE PROBLEM For many hospitals, having around-the-clock neurological expertise to manage patients with signs of acute stroke is generally not practical or feasible. However, the lack of such a specialist often puts patients at risk for lifelong impairment or even death as they await care or need to be cared for at another facility. Since every second counts for successful clinical outcomes, delayed treatment exposes the hospital to potential liability issues and impedes the patient and caregiver satisfaction.

The Providence Newberg Medical Center, a forty-bed hospital located about thirty minutes outside of Portland, was in such a situation in 2009. While they had local neurological expertise, it was not on-site around the clock, making it difficult to immediately assess patients and quickly determine appropriate therapy (such as rTPA). For patients the facility was able to treat, their clinical data still showed room for improvement:

- A median “door to needle” (DTN) time of 82 minutes, significantly higher than the recommended median of sixty minutes or less¹
- IV Alteplase treatment rates were 2.3%, less than half the national average
- The average length of stay (LOS) for ischemic stroke patients was 2.1 days

They knew their patients and caregivers deserved better, so they sought to augment their local capabilities with acute Telestroke support from an experienced provider.

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THE SOLUTION The Providence Newberg Medical Center reached out to Providence Health & Services (PH&S) for support, and ultimately implemented its complete, turnkey Telestroke solution in Q3 of 2010. Right away, the hospital gained access to board-certified vascular neurologists and their teams, as if they were part of their own staff

Far more than simply implementing telehealth technology, the new Telestroke solution came with continuous service and support, including:

- Standardized, proven protocols and workflows, so that the hospital did not have to do any 'assembly' in figuring out best practices for using the technology
- Facilitating licensing & credentialing for the neurologists who would be working with the Providence Newberg Medical Center
- Routine quality management to help ensure the Telestroke solution was operating and being used effectively
- Ongoing clinical training for the hospital's nurses on best-practice processes in partnering with doctors to assess and treat stroke patients and use the technology, including rTPA prep and administration
- A secure, integrated technical platform with ongoing advancements and tools

Providence Newberg Medical Center

Newberg, OR

Size: 40 Medicare-certified beds/32 staffed beds

Acute Telestroke solution go-live: Q3 2010

DTN time pre-Telestroke: 82 minutes

DTN time after implementation: 53 minutes

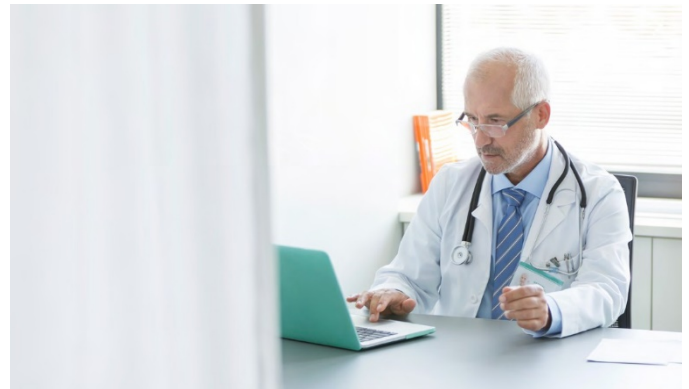
IV Alteplase treatment rate pre-Telestroke: 2.3%

IV Alteplase treatment rate post-Telestroke: 7.69%

IMPACT In utilizing the PH&S Telestroke solution, the Providence Newberg Medical Center was able to immediately achieve and maintain a higher quality of care and treat more stroke patients locally. By 2015, they had radically improved their clinical outcomes for ischemic stroke patients:

- 35% decrease in DTN times to an average of 53 minutes (well within national guidelines)
- 7.69% IV Alteplase treatment rate, exceeding the national average of 5.2% in 2015
- Significantly reduced transfer rates

It is also noteworthy that the LOS for Ischemic stroke patients dropped slightly, from 2.1 days to 1.9 days, despite there being a significant increase in local treatment rates. This suggests that the impact of Providence Telestroke at the facility enhanced its capacity to manage cases, and improved its bottom line.



CONCLUSION A partnership with Providence Telehealth means taking a collaborative approach to care that provides a complete, seamless, and integrated experience for both patients and staff. At Providence, our focus extends beyond a single encounter, and is much more than simply technology. We provide a dedicated network of care that supports and stands behind your hospital, so that you can better stand behind your patients. And in the case of the Providence Newberg Medical Center, this type of integrated approach has not only boosted the facility's bottom line, but has significantly improved its clinical performance and outcomes.

¹ Source: http://www.strokeassociation.org/idc/groups/heart-public/@wcm/@hcm/@gwtg/documents/downloadable/ucm_308277.pdf