



## Optimizing Anticoagulant Therapy Management: Roche's Bold Connected Solution

“ We believe the addition of mobile technology and cloud-based connectivity is a natural evolution for point-of-care and patient self-testing devices. At its core, point-of-care diagnostics have a singular and elegant focus: to provide patients and their physicians with reliable, medically-relevant results when and where they need them. ”

*Dr. Alan Wright, Chief Medical Officer, Roche Diagnostics*

### CONTRIBUTING FACTS

More than **2.5 million** people in the US, and 6 million in the EU are affected by atrial fibrillation (AF)<sup>1</sup>

Almost **80 percent** of patients affected by atrial fibrillation (AF) are managed with warfarin (brand names Coumadin® and Jantoven.<sup>2</sup>

Relatively few patients, just 3% (**75,000\* out of 4 million** patients on Warfarin), take advantage of home testing.<sup>2</sup>

The risks associated with suboptimal warfarin therapy management may require immediate medical attention.<sup>3</sup>

### OPPORTUNITY

- Warfarin therapy protocols generally call for monthly, sometimes up to weekly, blood tests, often performed at clinics or independent testing centers
- Many patients have schedule or transportation challenges that present barriers with regular lab or clinic testing
- The ability to self-test is available, however only an estimated 3% or less of anticoagulant patients take advantage of home monitoring<sup>2</sup>
- For those who do test at home, current reporting methods include calling in results or entering them online, both of which have the potential for latency or reporting errors

“ To roll out a solution of this magnitude was extremely challenging. Qualcomm Life was there with us in lockstep. ”

*Howard Sams, Vice President, Project Lead, Point of Care, Roche Diagnostics International, Ltd.*

### EXECUTIVE SUMMARY

A leader in point-of-care diagnostics, Roche entered into collaboration with Qualcomm Life to deliver a unique and truly wireless connected INR home monitoring solution. Designed for patients on warfarin, the CoaguChek® XS mPOC kit leverages the cloud-based 2net™ Platform to deliver accurate, near real-time, encrypted data to Roche's CoaguChek Link portal. This solution is available through CoaguChek Patient Services. The goal of the program is to make self-monitoring easy for patients, while providing clinicians with accurately reported, near real-time data to better manage patients and make informed interventions.

The CoaguChek XS mPOC solution has been available on a limited release basis for the past couple of months. Approximately 95% of patients using the CoaguChek XS mPOC solution find it favorable to their current method of reporting.

Providers saw a significant advantage in having accurate data immediately transferred and accessible to them, but also in the more seamless process with fewer steps involved for both clinicians and patients.



“The biggest benefit of this solution is that it makes the support process more seamless. It eliminates additional steps for both the patients and the clinicians, giving both groups a better overall experience with tele-monitoring. If the patient experience is better, they are more likely to adhere to our directions.”

*PharmD, BCACP, Clinical Pharmacy Specialist  
who uses CoaguChek Patient Services to manage warfarin patients remotely*

With a vision of providing accurate and more efficient home testing, Roche entered into a strategic collaboration with Qualcomm Life to improve remote management of patients on anticoagulant therapy. This solution will be made available to patients enrolled in CoaguChek Patient Services.

Therapy guidelines generally call for monthly—and sometimes up to weekly—blood tests. And, under the current standard of care, they’re usually performed at a clinic or lab. This can be a major inconvenience and challenge for patients due to lifestyle or health-related factors, like patients who travel for work or those who rely on caregivers for transportation. When patients can enjoy the convenience and ease of self-testing, they may better adhere to their prescribed testing schedule and spend more time within their target PT/INR range. From an economic standpoint, keeping patients out of the emergency room can reduce overall health care costs.

Leveraging Qualcomm Life’s 2net Platform, Roche designed their CoaguChek XS mPOC solution to capture data from the meters, encrypt it, and securely transmit it to Roche’s patient management solution, CoaguChek Link web portal, which provides near real-time, accurate results for clinicians. Physicians are able to monitor their patients remotely with timely access to PT/INR results from CoaguChek Patient Services, including notifications if a patient’s result is out of range. They can also review trends of a patient’s results over time on the CoaguChek Link portal.

An exceptional patient experience and driving confidence with health care professionals were primary goals. Roche wanted the CoaguChek XS mPOC kit solution to be easy to use and seamless for patients. To gain acceptance, it had to be simple, right out of the box.

Here are a few comments from patients who had the opportunity to use the CoaguChek XS mPOC kit during the limited early release:

- ✓ It seems like it is going to make management easier for me.
- ✓ I had clear and concise instructions on how to use 2net and it worked perfectly the first time.
- ✓ The CoaguChek XS mPOC and 2net solution is quick and easy. Nothing to it.
- ✓ It is great because of the convenience of not having to go to the clinic or call in.

“This collaboration marks a significant milestone for Roche as we launch a new generation of point-of-care solutions that enable health care professionals to better keep in touch remotely with patients, whenever and wherever they are,” says Jeremy Moss, Senior Vice President, Point of Care at Roche Diagnostics International, Ltd. “By combining Qualcomm Life’s leadership in powering connected health solutions with our point-of-care expertise, we are taking an important step forward to realize our connected care strategy, ultimately enabling physicians to improve the overall quality of life for patients.”

## RESULTS

Feedback on this new connected solution has been favorable, with early users giving high marks for a more streamlined process for reporting results, ease of use and high confidence in results that are transmitted timely and securely.

Learn more about how Qualcomm Life mobilizes health care through continuous care and informed interventions. Visit [qualcomm.life](http://qualcomm.life).

Learn more about how Roche is redefining remote monitoring. Visit [go.roche.com/mpoc](http://go.roche.com/mpoc).

<sup>1</sup>Levi M et al (2009) Semin Thromb Hemost 35:527-542

<sup>2</sup>Brownstein AP, Fenninger R. Improvement In Warfarin Patient Management Through Patient Self Testing (PST):

Implications for Public and Private 3rd Party Payers and Public Health. Anticoagulation Forum: 12th National Conference on Anticoagulation Therapy, 2013

<sup>3</sup>Mayo Clinic [http://www.mayoclinic.org/diseases-conditions/deep-vein-thrombosis/in-depth/warfarin-side-effects/art-](http://www.mayoclinic.org/diseases-conditions/deep-vein-thrombosis/in-depth/warfarin-side-effects/art-20047592)

<sup>4</sup>20047592 Matchar DB, et al. Effect of home testing of international normalized ratio on clinical events. N Engl J Med. 2010 Oct 21;363(17):1608-20.