



MEDCENTRAL and RippleDown™ALERTS

Building a real time alert system for cardiac patients

“Alerts are now being generated in real time, 24 x 7, with the same level of quality and accuracy as if previously reviewed by our senior Clinical Chemist”. Dr Eugenio Zabaleta, Senior Clinical Chemist MEDCENTRAL

In need of medical alerts in real time:

MedCentral in Mansfield OHIO is an acute cardiac facility with a strong focus on high quality patient centric efficient services. MedCentral recognises that human communication is critical to high quality patient care. In order to maximize the quality of our patient care, our medical staff requested that our laboratory staff identify clinically significant cardiac Troponin results, particularly including patients showing trends where Troponin is increasing but still below a critical level. Medical staff required communication of this information in real time so that intervention could commence immediately – a situation not possible when relying on manual processes.

“RippleDown™ Alerts has helped to eliminate human errors and improve treatment decisions” Dr Brad Peffley, Vice President Clinical Quality, MEDCENTRAL

Investigating the solution:

We conducted extensive investigations of IT systems that were capable of raising alerts only where necessary and as a result, enhanced the clinical consultation process and increased the speed at which necessary interventions were applied. To meet the requirements of our Alerting needs, MedCentral investigated a range of options that were available in the US market. This included applications that might be integrated with our enterprise wide IT solution as well as the option of developing a complex rule set within the enterprise solution to provide the necessary functionality.

Four reasons why we chose Rippledown:

Rippledown™Alerts can truly tailor the Alerting System to meet all the requirements of our organisation.

As a result of the evaluations undertaken by our senior clinical and IT experts, we chose the **Rippledown™Alerts (embed hyperlink to Alerts page)** for four main reasons. Most importantly, the **Rippledown™ (hyperlink to RippleDown overview page)** engine can easily manage complex clinical cases and apply rules over a defined period of time. Secondly, as an interfaced middleware product, **Rippledown™** can interrogate data from multiple sources and derive conclusions from the aggregated data set and then forward those conclusions to multiple receiving applications. Third, **Rippledown™** is sufficiently flexible to be able to modulate the alerts based on previous alerts that it has generated. Finally, the product is sufficiently flexible to accommodate local business variations – such as our different facility locations and Doctor preferences.

Communication between laboratory and Clinical staff has increased and the alerts have been shown to have a positive impact on the manner in which patients are managed within our organization.

Building, testing and implementing Rippledown™ Alerts

The implementation of **Rippledown™ Alerts** required some degree of integration into our enterprise solution. This was comfortably managed between the technical staff of Siemens and PKS following a project plan recognised by a tripartite agreement. Despite major time differences, developments and testing happened smoothly according to the plan and implementation occurred within a reasonable variation of the original schedule. Improvements and enhancements to the operational system are supported by regular software releases from PKS providing a rapid turn around on requested modifications.

“...Equally important, the new procedure was supported by nurses and physicians.” Mr Fred Crowgey, IS project Director

Live operation outcomes:

After six months of live operation of **Rippledown™ Alerts** in MedCentral, the requirements of our original initiative have been met. Alerts are being generated in real time, 24 x 7, with the same level of quality and accuracy as if previously reviewed by our senior Clinical Chemist. Communication between laboratory and Clinical staff has increased and the alerts have been shown to have a positive impact on the manner in which patients are managed within our organisation.

Dr Eugenio Zabaleta, Senior Clinical Chemist

Dr Mike Patterson

Dr Brad Peffley, Vice President Clinical Quality said:

Mr Fred Crowgey, IS project Director said, “Consistent application of clinical knowledge through **RippleDown™ Alerts** helped to eliminate "human errors and improve treatment decisions at the point of care in a timely manner. Equally important, the new procedure was supported by nurses and physicians.”