



Smarter Care.
Better
Outcomes.
Healthier You.

Improving safety and efficiency for mother and baby

Phase one of nationwide project already showing results

Birth in Ireland used to be a completely analogue affair, with families expected to carry paper records around between GP and hospitals. As well as the extra stress of needing to bring along the information, there was a risk to the safety of mother and child if elements were lost, or not kept up to date. Now though, the rollout has begun for the Maternal & Newborn Clinical Management System (MN-CMS), which puts mother and baby at the centre.

Phase one of the project included Cork University Maternity Hospital (CUMH), University Hospital Kerry (UHK), Rotunda Hospital and the National Maternity Hospital (NMH). Through these four facilities alone, 40 percent of the country's babies are now born with a digital record within Cerner's systems, enabling a virtually paperless process through antenatal visits, labour and delivery, and post-partum care, regardless of the venue of care.

Powered by *Cerner Millennium*[®], MN-CMS is saving time on manual administration tasks. Previously, for each patient, midwives would need to spend over 19 minutes simply preparing a paper chart - time that is no longer wasted. Furthermore, manually writing a

patient's narrative notes used to consume a lot of nurse's time. MN-CMS has reduced this time by 98 percent. This means that, on average, each NICU nurse gets 76 minutes back for direct patient care every shift.*

 **76 minutes back**
for each nurse every shift

The MN-CMS system has also made medication safer in the Neonatal intensive care unit context, with the implementation of a broad ranging neonatal medication safety bundle. By using digitisation to standardise processes, pharmaceutical care issues relating to heparin, dopamine, insulin and morphine fell by 77 percent, from 176 instances to just 41.

“MN-CMS will make an enormous difference to have information available to anyone dealing with the patient as they need it. We won't all be looking for the same patient chart.”

Professor Richard Greene
Consultant obstetrician and joint national clinical lead for obstetrics
Cork University Maternity Hospital and MN-CMS

Opening up connected care possibilities across Ireland

In the obstetric context, MN-CMS has facilitated the successful pilot of an oxytocin medication safety bundle that both minimises the risk of medication errors and streamlines processes to ensure prompt management of postpartum haemorrhage (PPH). This has led to an overall reduction in oxytocin use, no changes in PPH rates and a safer process which helps minimise the risk of serious errors with this high-risk medication.

Providing direct and indirect value nationwide

Phase one of the MN-CMS project has seen the system successfully roll out at four of Ireland's 19 maternity facilities. Ultimately, they will all be linked, so that wherever in the country an expectant mother is, she can be confident that her details will be available to ensure the safe and efficient birth of her child.

Staff also benefit from using MN-CMS, as they can now properly code diagnoses and procedures, receive alerts if there is an increased risk of conditions such as sepsis, and have the ability to work remotely, which can have a massive impact on their quality of life by removing a lot of unnecessary travelling.

“We had very good clinical input into our design phases, so there were clinicians at every stage of this who gained national agreement on a number of issues so that we could build all of these into MN-CMS.”

Orla Sheehan
NICU nurse and system administrator for MN-CMS
Cork University Maternity Hospital

Most recently, the team have integrated more patients' experiences with adding specialist gynaecology functionality. Designed alongside clinicians to enhance quality, the new gynaecology module will help improve communications, medications safety and processes, accuracy and immediate availability of information, early alerting and decision support, and clinical auditing. It also frees up more time to care for Ireland's gynaecology patients.

The value of MN-CMS away from the delivery suite can be realised in other ways as well. Clinical trials are an important part of many areas of medicine, helping save lives and improve patient care, including in maternity.

The digitalisation of expectant mothers' information provides an opportunity to benefit these studies, helping Ireland's bid to remain at the forefront of medical advancement both domestically and internationally.

By using the Cerner clinical trials management solution *PowerTrials*® as part of MN-CMS, researchers at CUMH and UHK were able to recruit expectant mothers much more quickly to a large-scale Irish-led European project aimed at improving pregnancy outcomes globally.

Nicolai Murphy, IMPROVED clinical co-ordinator at University College Cork identified “a 67 percent reduction in time spent recruiting each expectant mother for the IMPROVED research study”, which saves three hours 15 minutes each week.

Subject management was supported too – a flag was added to the EHRs of people taking part in trials so other care providers could be aware of their involvement to help them make safer decisions at the point of care.



About Cerner

We're continuously building on our foundation of intelligent solutions for the healthcare industry. Our technologies connect people and systems, and our wide range of services support the clinical, financial and operational needs of organisations of every size.

Contact us for more information

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