Papworth Hospital goes paperless in their ICU with MetaVision

Results include elimination of prescription errors, compliance with reporting requirements and increased research production

ABOUT PAPWORTH HOSPITAL

Papworth Hospital is one of the largest specialist cardiothoracic (heart and lung) hospitals in Europe and includes the country's main heart and lung transplant centre. Over the last three years, it has performed the highest number of heart surgery procedures in the UK whilst achieving the country's lowest cardiac surgery mortality rate. It treats more than 24,400 inpatients and day cases and sees more than 73,600 outpatients each year from across the UK. Papworth Hospital's services are internationally recognised and include cardiology, respiratory medicine, sleep medicine, cardiac surgery, thoracic surgery and heart & lung transplantation. Additionally, it has the largest respiratory support and sleep centre (RSSC) in the UK. The hospital is committed to delivering the highest levels of clinical quality and providing the best possible standards of personalised care to its patients.

THE NEED

Papworth Hospital was looking for a clinical information system (CIS) to support the process of care and increase homogeneity in practice, reducing variations that arose due to the individual health care practitioner. Clinical information management would allow them to record and analyse their practices to ensure that they provide the best possible care for their patients at all times. Like all intensive care units, they generated a great deal of paperwork on a daily basis. By removing the need for paper, they sought to ensure that all documentation would be captured in one location, could not be lost and could be viewed and used by multiple people in multiple locations at the same time. Clinicians from Papworth Hospital visited a number of UK and European hospitals and explored the pros and cons of a number of different clinical information systems. Being a specialist centre, the ability to customise a CIS to suit their niche requirements was a priority. MetaVision offered them that flexibility in addition to analytical functionality to help them with reporting and auditing.

AT A GLANCE

ABOUT

| One of the largest specialist cardiothoracic hospitals in Europe

| Treats more than 24,400 inpatients and day cases each year

| Largest respiratory support and sleep centre in the UK

NEED

| Support process of care

| Increase homogeneity in practice

| Data access by multiple people in multiple locations

SOLUTION

| MetaVision ICU

RESULTS

| Elimination of prescription errors

| Improved patient care due to standardisation

| Guidance at the point of care

| Easier access to data for research

| Compliance with national and local reporting requirements

| Access to the relevant data anytime, anywhere within the hospital

THE SOLUTION

The hospital chose the MetaVision CIS for 25 level 3 ICU beds, and implemented the system in November 2006. Prior to implementation, a multi-disciplinary team at the hospital designed a user interface that supports their unit's workflow. iMDsoft provided Papworth Hospital with an onsite implementation team that assisted them with the go-live process and was responsive to issues as they arose.

When using MetaVision, staff found that having a variety of system layouts for various types of patients to be extremely helpful. The ICU has since been extended and an additional eight beds have been added. Staff found it easy to add these beds to MetaVision.

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MetaVision is a great information platform that has allowed us to support numerous complex clinical pathways in our busy ICU. The ease of customisation is its greatest strength in helping us to develop and support new initiatives and to ensure that the system remains up to date and valuable to all staff members."

Dr. Alain Vuylsteke
Consultant in Anaesthesia and Intensive Care
Papworth Hospital

RESULTS

Elimination of prescription errors

Papworth Hospital has been able to eliminate a number of types of drug errors completely. All prescribers have to complete all parts of a prescription, removing any ambiguity[1].

Improved patient care due to standardisation

The implementation of MetaVision has enabled the hospital to become a virtually paper-free ICU and to standardise their working practices, their documentation and the daily ward rounds. The consistent capturing of information has enabled them to analyse these data and make improvements in many areas of patient care.

Guidance at the point of care

The hospital has embedded links to a wide range of Trust documents that provide guidance for clinical staff at the bedside whenever they need it. One of the key benefits of using MetaVision is being able to link drug monographs with the actual prescription. This means that nursing staff don't have to leave the patient or even the patient's record to receive guidance for preparing a drug.

Increased production of research

The ability to extract data from MetaVision has enabled the hospital to publish a large number of papers. Clinicians know that they are basing their

observations on complete information and can get the information they need significantly faster than if they had to collate the information from paper records or to view each electronic record individually. The system has improved the ability of research staff to verify data entry for study patients.

Compliance with national and local reporting requirements

Papworth Hospital now completes all relevant documentation for compliance with current national reporting requirements, such as CQUINs for VTE risk assessment, the ICNARC Case Mix Programme and ICCQIP infection reporting. They can meet various local reporting requirements including delirium management, ECMO usage, CVVH and acute kidney injury. The use of MetaVision has also enabled them to participate fully in the UK national critical care audit programme, which would be impossible if they were still working with paper records.

Access to the relevant data anytime, anywhere

Having 24/7 access patient records from any location within the hospital makes it easier for clinicians to treat their patients effectively. Because the information is available electronically, staff can review patients in multi-disciplinary team meetings that are held away from the ICU.

The impact of computerised physician order entry on prescribing practices in a cardiothoracic intensive care unit. Ali J, Barrow L, Vuylsteke A. Anaesthesia; 2010 Feb;65(2):119-23

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