iMDsoft helps Hadassah Hebrew University Medical Center reduce Postoperative Nausea and Vomiting (PONV) in the OR

Use of ineffective PONV drug dropped 13%, to only 1.2%, as a result of a quality improvement program fueled by data from MetaVision®

Hospital profile

Hadassah Hebrew University Medical Center in Israel is comprised of a 1,050 bed hospital on two campuses (Ein Kerem and Mount Scopus), as well as the schools of medicine, public health, occupational therapy, dentistry, nursing, and pharmacology of the Hebrew University of Jerusalem. Hadassah serves as Israel's national center of excellence for the most complex and challenging medical cases. The hospital supports an extensive network of community healthcare programs, and was nominated for the Nobel Peace Prize in recognition of its equal treatment of all patients. The MetaVision suite of Clinical Information Systems is installed in the operating rooms of both Hadassah campuses, and in the hospital's general ICU.

The need

Hadassah Hebrew University Medical Center sought a system to improve its level of care by automating the recording of OR patient vital signs and clinical entries. Further, the hospital had several quality improvements underway that could only proceed with the implementation of an advanced clinical information system. Finally, as research is a key focus at the hospital, the Medical Center required a reliable system that could store, back-up, and retrieve data in formats suitable for research purposes.

The solution

Hadassah conducted an extensive evaluation and concluded that MetaVision was the best fit with its requirements. MetaVision stood out from the competition with its high degree of customization and ability to easily adapt to Hadassah's workflow. Since its successful implementation in February 2007 in 17 ORs in Ein Kerem and 6 ORs in Mount Scopus, MetaVision has met Hadassah's needs for a comprehensive and effective AIMS. The hospital has an electronic backup of their anesthesia records, and they use the pool of patient data for quality improvement and research.

At a Glance

Hospital Profile
> 1,050 bed hospital on two campuses
> Nominated for the Nobel Peace Prize for its equal treatment of all patients
> Israel's national center of excellence for the most challenging cases

The Need
> Automated recording of OR patient data
> Reliable back-up of anesthesia records
> Storage and retrieval of data for quality initiatives and research

iMDsoft Solution
MV-OR™, iMDsoft's Anesthesia Information Management System (AIMS)

Results
Reduced PONV in the OR using data retrieved from MetaVision:
> Decreased use of ineffective PONV drug by 13%
> Increased number of patients who got the correct dosage by over 20%
> Decreased number of patients who got the PONV drug too early by 25%

Results

Using MetaVision, Hadassah initiated a quality improvement initiative to improve adherence to Postoperative Nausea and Vomiting (PONV) prevention protocols. PONV can affect up to 60% of patients undergoing general anesthesia, often results in lengthened hospitalization, and can easily be prevented using appropriate and timely administration of antiemetic drugs.

The hospital examined the prophylactic treatment for PONV to evaluate whether their clinical practice was adhering to best practices. They reviewed 38,271 anesthesia records using MetaVision's Query Wizard tool. The results were presented to the hospital staff, accompanied by a lecture on prevention of PONV. Three months later, 5,634 anesthesia records were reviewed to assess whether there had been an improvement in the choice, dosage and timing of antiemetic drugs.
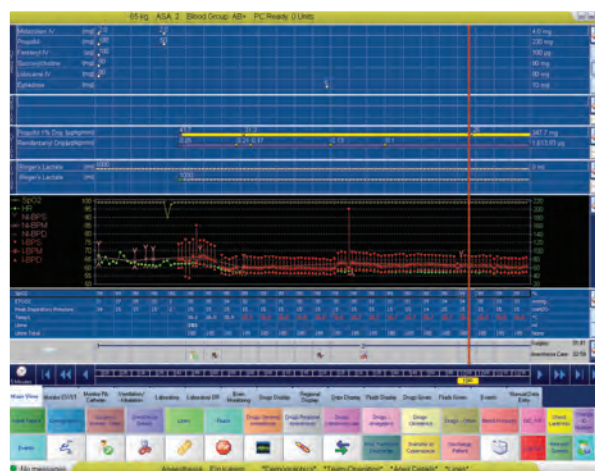
With MetaVision, the Medical Center was able to identify points of weakness in the implementation of their clinical protocols, and to quantify the improvement in patient care that occurred as a result of their quality initiatives.

Hadassah main MetaVision screen

Correct choice of drug

During the quality improvement initiative, the anesthesiology department used MetaVision to demonstrate that 14.2% of anesthesia patients were being treated with metoclopramide, which is ineffective in preventing PONV. During the following three months, the use of metoclopramide dropped to 1.2%. The administration of dexamethasone, an inexpensive and effective alternative, increased from 16.4% to 30.6%.

Correct dosage and timing

After the quality initiative driven by MetaVision, the number of patients who got the correct dosage of medication rose from 70.2% to 93.5%. There was a 25% decrease in the number of patients who got the PONV drug too early. These kinds of statistics were unavailable before implementing MetaVision.

About *iMDsoft*

iMDsoft is a leading provider of Clinical Information Systems (CIS) for perioperative and critical care. The company's flagship family of solutions, the MetaVision Suite, was first implemented in 1999. It has since become a market leader, with implementations in a wide range of ICUs and ORs. Major medical centers across the US, Europe, and Asia, including 4 of the top 10 hospitals in the US and 13 of the top 50 hospitals in Europe, use *iMDsoft*'s technology to improve care quality, promote patient safety, enhance financial performance, support research and compliance, and achieve sustainable market leadership.

"We've been using MetaVision for four years now, and it has dramatically improved our adherence to PONV treatment protocols such as correct drug choice, correct dose, and correct time of administration. Thanks to MetaVision, our anesthesia records don't get lost anymore. MetaVision's data retrieval capabilities have been invaluable for our quality assurance programs and research."

Dr. Alexander Avidan
Department of Anesthesiology & Critical Care Medicine at Ein Kerem

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