

Electronic Decision Support System Demonstrations: Abstracts

Demonstration of a decision support system: meeting the challenge of chronic disease manage chronic

Presenter: Sharon Smart, Prodigy, United Kingdom

Additional Authors: Ian Purves and Peter Johnson, SCHIN, United Kingdom

The team at SCHIN have developed a new decision support system that has been designed to support the challenge of chronic disease management. Through years of experience and user feedback we identified the need for a system that integrates more closely with the electronic record and is able to take account of the patient's past history, the severity of the condition, co-morbidity, and past and current medication before recommending treatment or management options.

The aim of this decision support system was to: • create an easy to use system by which health care professionals can access and use guidelines • utilise a knowledge base that can be created by clinicians with little technical training, and is scaleable • present the clinical knowledge in different ways to suit the needs of different health care professionals.

Towards a standard for computer-based guidelines representation and execution: the GLARE proposal

Presenter: Paolo Terenziani, Universita' del Piemonte Orientale, Italy

Additional Authors: Paolo Terenziani, A. Bottrighi, G. Correndo, G. Molino, S. Montani, and M. Torchio

Clinical guidelines (CG) may provide crucial advantages to patients, physicians and hospitals. The adoption of computer-based approaches provides additional advantages. Thus, many computer-based managers of CG (CGM) have been devised.

GLARE (Guideline Acquisition, Representation and Execution) is a CGM, built from 1997 in a joint project between the University of Alessandria and Az. Osp. S. Giovanni Battista in Turin, the second largest hospital in Italy. GLARE aims to be a user-friendly, domain-independent (ie, it must be able to manage CG from different domains) and task-independent (ie, it might be used for decision support, education, critique or evaluation) tool to acquire, represent, store and execute CGs.

An innovative IT solution for population-based cardiovascular disease risk assessment and management within primary care: jumping the clinical performance indicator hurdle

Speaker: David Nixon, The Doctors, New Zealand

Additional Authors: M Smith and K Preston, Primary Care IT Solutions Ltd, New Zealand

PHO Clinical Performance Indicators (CPIs) are an indirect measure of the application of evidence-based medicine. Targeted population based CVD risk assessment, as apposed to individual 'face to face' assessment, is a key component to these CPIs.

To develop a piece of software capable of extracting the data from GP computing systems and calculating the CVD risk of the patient, targeted subpopulations or the whole practice population-at the

touch of a button. It would identify and collate patients who are missing data to help the GP develop simple strategies for data acquisition and better CPI performance and CVD risk management.

We developed a piece of computing software, which is able to extract the data and calculate the patient's or practice population's CVD risk and provide data gap reporting for targeted data acquisition strategies. In June 2004, this was applied to our Enrolled Patient population of 7219 patients and targeted to select the males >35 years and females >45 years of Māori, Pacific Island ethnicity and >45 years males and >55 years females of European or Pakehā ethnicity – as per New Zealand Guidelines Group.

Evidence into action using a best practice tool: the clinical governance management system (CGMS)

Speaker: Stephen George Bloomer, Sir Charles Gairdner Hospital, Australia

Additional Author: Jeff Ewen

Cardiovascular disease is the leading cause of death in Australia and most other developed economies. There are very few clinical indicators reflective of care in cardiovascular medicine (CVM). Patients attending a tertiary hospital, Sir Charles Gairdner Hospital, should be provided with best evidence care.

To develop clinical indicators in CVM based on the department's compliance with Class I evidence for the major diagnoses of myocardial infarction (STEMI, Non-STEMI), unstable angina, heart failure and atrial fibrillation/flutter. The recommendation is that, with Class I evidence, the procedure/treatment should be performed/administered. If not, then there should be a valid contraindication recorded.

Guidelines in action

Presenters: Sue Wells and Rod Jackson, University of Auckland, New Zealand

An on-line presentation will demonstrate a web-based clinical decision support programme, PREDICT-CVD implemented within the New Zealand primary health care setting. It has been developed by a large collaborative group including health-IT professionals from Enigma and HealthTech, general practitioners, cardiologists, dietitians, practice nurses, representatives of Counties Manukau District Health Board (CMDHB), ProCare Network, New Zealand Guidelines Group, National Heart Foundation and University of Auckland. Based on the New Zealand cardiovascular guidelines, the programme not only makes CVD risk prediction tools more accessible but also provides GPs with real-time, evidence-based, patient-specific CVD risk assessment and management support.

Electronic therapeutic guidelines

Speaker: Mary Hemming, Therapeutic Guidelines Ltd, Australia

If Guidelines are to be implemented, they must be presented in a usable format.

Therapeutic Guidelines cover approximately 2500 topics across 10 broad therapeutic areas, with 25,000 index terms. They are developed by 10 separate expert groups, comprising 125 authors. Others involved include 113 expert contributors, 108 expert reviewers, 28 endorsing organisations.

The electronic product, eTG complete, brings all 2500 topics together as an integrated web-based product with a single simple navigation system. A problem entered in the index pane immediately displays the topic.

For clinicians on the move an abridged version designed specifically for handheld computers is available.