

What Can Enhanced Influenza Surveillance Teach Us About Syndromic Surveillance?

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Background:

Currently Scotland has a number of influenza surveillance schemes, including 'flu-spotter' practices, and enhanced surveillance general practices that submit clinical samples for virological testing (SERVIS practices). This information feeds annually into the European Influenza Surveillance Scheme¹. Information from the systems is seasonal, and limited geographically covering 6% and 3% of the population respectively. The utilisation by Scottish community physicians (general practitioners, GP's) of the same administration system in over 80% of settings - the General Practice Administration System for Scotland (GPASS) - offers an alternative approach to influenza surveillance with some additional benefits.

Objective:

To develop and pilot an enhanced primary care surveillance system of influenza-like illness in Scotland, record influenza vaccine uptake and estimate vaccine effectiveness in season in real time.

Methods:

A software programme was designed by Campbell Software to extract vaccine uptake data on influenza and pneumococcal vaccine. In season 2005/6 this allowed GP's to report on vaccine uptake in specific risk groups and facilitated billing claims from the NHS. An extension of this system was developed to enable extraction of data on key additional demographic variables, consultations for influenza-like illness (ILI) and acute respiratory illness (ARI), and prescribing of antibiotics and antiviral medications. Phase 1 of the pilot, June – August 2006 involves the semiautomatic extraction of data from selected practices. Phase 2 of the pilot, September – October 2006 involves roll out of use of the data from 80% of all Scottish GP's.

Results:

A File Transfer Protocol will be used to receive encrypted data from GP practices to a secure server. A database management system has been set up, and is currently being tested. READ codes (similar to SNOMED II), used in general practice to identify clinical concepts, have been selected to identify clinical risk groups, to code ILLI, and ARI, to identify influenza and pneumococcal vaccination and record antiviral and antibiotic therapies. Standard reporting tables generated from the data allow provision for feedback of key information to Health Protection Teams, Government and the GP's themselves. The project-managed system is due for launch in September 2006.

Conclusions:

The establishment of this project will complement the QFlu system in England², which interfaces with a different practice management system predominately used in England. It will allow a harmonised reporting of data across the UK. The pilot offers the potential of automated extraction of primary care data to provide surveillance information, to support pandemic influenza planning in describing the impact of public health interventions in a community setting by allowing derivation of in season vaccine, antiviral and antibiotic effectiveness in the prevention of complication of ILI/ARI and death, to improve the management of influenza-like illnesses within Scotland. Careful evaluation of the system will be required over the influenza season. Lessons from this approach for current and future syndromic surveillance schemes will be explored.

References

1. The European Influenza Surveillance Scheme, <http://www.eiss.org/index.cgi>
- 2 QFLU: new influenza monitoring in UK primary care to support pandemic influenza planning. J Hippisley-Cox et al, <http://www.eurosurveillance.org/ew/2006/060622.asp#4>