Background: Stroke facts

- 110,000 strokes and 20,000 transient ischaemic attacks (mini-stroke) occur in England every year
- 53,000 deaths per year in the UK are due to stroke
- 300,000 people live with moderate-severe stroke related disabilities
- £8 billion per annum in direct and informal care costs and lost productivity

Why target patients with Atrial Fibrillation?

Appropriate anti-coagulation of all patients with recognised AF would prevent approximately 4,500 strokes per year and prevent 3,000 deaths.

Research has shown that the existence of atrial fibrillation (AF) is a major precursor to the occurrence of stroke, and treatment of this condition with anticoagulant therapy is highly effective in reducing stroke risk.

In 2007, the West Yorkshire Cardiac Network (WYCN) in conjunction with Leeds Primary Care Trust (PCT) and Leeds Teaching Hospitals NHS Trusts, developed a series of MIQUEST queries to support GP practices in addressing the problem. The queries enabled practices to identify patients with AF and calculate their stroke risk. Appropriate patients were then reviewed by a clinician.

The queries were trialled on EMIS LV systems in the Leeds area and it was recognised that to make the queries widely available across all clinical systems would require external expertise.

PRIMIS was approached by NHS Improvement and commissioned to develop a solution: the NHS Improvement Guidance on Risk Assessment for Stroke Prevention in Atrial Fibrillation (GRASP-AF) tool.

How was the GRASP-AF Tool developed?

PRIMIS Clinical Advisers and Information Team have extensive knowledge and understanding of clinical terminologies, primary care clinical IT systems, data extraction and technical specifications, clinical audit and data analysis.

Working in partnership with WYCN, a clinical specification was developed and translated into a set of data extraction queries compatible with the PRIMIS CHART software.

What did PRIMIS provide?

- support to define the specification
- formatting of queries
- definition of code strings in Read V2 and CTV3
- tool functionality compatible with all accredited GP clinical systems
- clinical and statistical analysis for development of a dashboard display
- clinical and statistical advice for data display in CHART Online
- ongoing support and guidance to NHS Improvement

Adele Graham from the Stroke Network commented “I cannot fault the commitment and helpfulness of the PRIMIS team... no matter what I wanted they always delivered!”

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Dr Richard Healicon, National Improvement Lead for NHS Improving Quality: “The GRASP-AF audit tool is an important element in our strategy to reduce the number of AF related strokes. We have had many positive comments from GPs using the tool and over 2000 practices have used GRASP-AF and uploaded data to CHART Online. This data is providing invaluable information on the prevalence of AF, and how we can improve the management of AF to improve outcomes for patients.”

What is CHART?

PRIMIS CHART (Care and Health Analysis in Real Time) is a software tool free for use in GP practices. It uses the nationally mandated MIQUEST data extraction process to interrogate the clinical system. A CHART library is used to deliver the pre-written MIQUEST searches to run on the clinical system MIQUEST interpreter. The results are loaded back into CHART to provide instant analysis of data. The straightforward Microsoft Excel-based process is simple to use and practice information is displayed in a variety of easy-to-read graphs and tables.

Aggregate data can be securely sent to a data warehouse where the PRIMIS CHART Online tool enables comparative analysis and benchmarking at several levels including individual practice, cardiac network and national comparisons.

What does the toolkit offer?

- identifies all patients with an AF diagnosis in their medical record
- automatically calculates CHADS2 and CHA2DS2-VASc score for each patient
- provides a practice level stroke risk dashboard
- highlights individual patients at risk of stroke not currently on warfarin
- creates a practice level summary of stroke risk and medication profiles
- includes a facility enabling comparative analysis
- validation tool for AF registers (AF Case Finder tool)

2033 practices from 102 PCTs have successfully uploaded data to CHART Online to create a substantial repository of stroke related information providing essential information on stroke treatment (June 2012).

Using GRASP-AF at a local level

The NHS Gloucestershire GRASP-AF project began in May 2010. A team of data quality and clinical audit facilitators led the project aimed at supporting clinical audit of patients with AF and addressing the GP contract Quality and Outcomes Framework medicines management indicators. The GRASP-AF Tool is part of the GRASP suite and can be accessed via: www.primis.nottingham.ac.uk/grasp-suite

Has it saved them any strokes/money?

Dr Jim Moore a GP working in Cheltenham said “The GRASP-AF project provides an opportunity for the practice to learn about, and provide contemporary evidence-based thromboprophylaxis for all our AF patients. We now ask the question ‘why shouldn’t I anticoagulate this high risk patient?’ as opposed to ‘why should I anticoagulate them?’. A subtle but significant change in emphasis.”

AF Case Finder

In response to user feedback, PRIMIS developed an AF Case Finder tool. This tool helps practices validate AF registers by identifying patients with codes in their electronic record suggesting possible or probable AF. The tool helps identify patients who may benefit from review, and supports improved management of AF and stroke prevention.

The AF Case Finder tool is freely available to members of the PRIMIS Hub: www.primis.nottingham.ac.uk/membership

References


PRIMIS provides a range of primary care health informatics services to the health sector and to the research community.

PRIMIS improves patient care using general practice data of better quality and accessibility, by helping organisations to:

- access patient data from GP IT systems
- transform data into information
- use information as a vehicle for change

PRIMIS Hub membership grants GP practices access to information, advice, training and tools from PRIMIS, the experts in data quality, and the effective use of health information for commissioning, and - above all - improved patient care.

Full Hub membership is open to CCGs, GP practices and other primary healthcare organisations.

PRIMIS was formed in 2000 and is a business unit of The University of Nottingham.

Contact:

e: enquiries@primis.nottingham.ac.uk
t: +44(0)115 846 6420

www.primis.nottingham.ac.uk