Getting Knowledge into Action to Improve Healthcare Quality

This issue of The Knowledge highlights tools and services to help practitioners apply knowledge in day to day frontline practice, making it easy to do the right thing, every time. All these developments contribute to a major change in the way NHS Scotland supports the utilisation of knowledge. The Knowledge into Action Review, initiated in January 2011, aims to define a national knowledge management system to:

- help practitioners to apply knowledge to frontline practice;
- align the use of knowledge with improving healthcare quality;
- support practitioners and managers to translate knowledge into better health outcomes, i.e. safe, effective, person-centred, and efficient care.

The review is sponsored by NHS Education for Scotland, supported jointly by NES and HIS knowledge management leads and chaired by the Deputy Director in the Directorate of Health and Social Care in Scottish Government. Professor Kevin Rooney, Professor of Care Improvement in University of West of Scotland, and Consultant Anaesthetist in NHS Greater Glasgow and Clyde, has been appointed as national clinical lead for Knowledge into Action. Knowledge Management Executive Leads identified in each NHS Board are helping build strategic engagement across the service.

The review has laid foundations and is building the will for change through an overview of the evidence base for what works in getting knowledge into action at the frontline, and through surveys, needs analyses and test of change initiatives led by knowledge managers across NHS Scotland. Overall, these investigations have helped us understand the systemic changes required to help get knowledge into action to improve quality of care. We need to augment research evidence about effective interventions (the “know-what” which underpins evidence-based practice) with evidence from real-life experience of staff and patients, and support for evidence adoption (the “know-how” which is essential to healthcare improvement).

In summary, key knowledge into action approaches include:

- actionable knowledge interventions which embed evidence-based practice in clinical workflow e.g., decision support, prompts and reminders, pathways, mobile apps, evidence bundles;
- social exchange and dissemination of knowledge from experience – e.g. through communities of practice, champions and educational outreach;
- building organisational culture and capacity for use of knowledge – through processes and skills;
- extending librarian roles as knowledge brokers, to align and integrate with improvement and clinical teams.

The recommendations from the review are now being collated and will form the basis of a change package to be implemented in collaboration across the service. The Knowledge into Action Change Team and Steering Group are beginning to define the implementation approach. We hope this issue of The Knowledge gives a flavour of future developments which will help us embed knowledge more effectively in healthcare quality and day to day delivery of care.
New tools to support clinical decision-making at point of care

Knowledge Services Group are developing several new services to support clinical decision making at point of care to support new ways of getting knowledge into action.

Clinical Decision Support Search toolbar

The Clinical Decision Support Search is intended to be used at point of care, or as close to point of care as possible, when a clinician will have less than two minutes to address a knowledge need or clinical question. The search is dedicated to “actionable knowledge” such as guidelines, evidence summaries, and clinical pathways; sources of information include SIGN, NICE, Dynamed, UpToDate and BNF.

One of the unique selling points of the search is that local evidence-based information will be indexed and available from this search — so users can search local and national information together. Currently this cannot be done elsewhere (e.g. Google) as the local information is usually held on Board intranets. As of December 2011, the search includes local information from NHS Lothian and Tayside. Local information from Fife and Borders is likely to be included next.

A number of boards is either currently piloting the service or interested in piloting. The search is accessed from a browser plug-in which is installed onto the user’s computer. This creates a search box with quicklinks embedded into the Internet Explorer web browser and means that the search box is always present, regardless of which website the user is accessing. Most clinical systems are web-based, so the vision is that users can have patient information on the screen (from their clinical system), and simultaneously use the clinical decision support search embedded within the toolbar if a clinical question arises during interaction with the patient. In this way the system is integrated into the user’s workflow, without the system actually being integrated into the clinical system itself.

Knowledge Services Group are currently working with NHS Tayside and SIGN to develop a prototype of an Actionable Knowledge Publication Toolkit.

The two main aspects of this development are:

1. development of a common technical means of creating visual clinical pathways within NHS Tayside, with embedded metadata and taxonomy. This will support:
   - consistency of output, i.e. all pathways produced within NHS Tayside should have the same overall look and feel;
   - central access mechanisms;
   - effective cross-linking between clinical pathways;
   - referencing from clinical pathways to the underlying evidence base, both local and national, e.g. local and national guidelines;

2. developing a prototype for streamlined publication of SIGN guidelines in various formats whilst simultaneously optimising guideline content for information retrieval.

Currently SIGN provides guidelines in multiple delivery formats, e.g. full guideline, ROCKET, html and pdf, and mobile versions, each entailing re-entry of content and duplication of effort. Little or no metadata or controlled vocabularies are associated with online SIGN guidelines, which can make individual recommendations within the guidelines difficult to retrieve.

Within the toolkit we aim to take on the bacterial UTI guideline as a proof of concept. Our aim is to define and apply a metadata structure and taxonomy to the guideline and guideline recommendations, and convert to XML to support dynamic rendering in PDF and html formats and potentially in rocket and mobile formats. By chunking up the guideline and applying metadata and taxonomy to individual recommendations within it, deep mining of SIGN content will be easier — for retrieval by search engines, or for linking to specific recommendations from clinical pathways or clinical systems.

For further information on these projects, please contact Sandra.Davies@nes.scot.nhs.uk
Online training delivered by Knowledge Services Group

Knowledge Services Group offer free online training sessions on the services provided by them, including The Knowledge Network, SSKS and community websites. These sessions are suitable for those who are new to The Knowledge Network and those who wish to refresh their skills.

A computer with Internet access and a telephone are needed to allow participation in these sessions.

The following training sessions are available, each session is delivered once a month.

Searching The Knowledge Network and accessing journals
This session covers searching The Knowledge Network with a focus on finding journal titles and articles. The session also explores managing search results using filters and, organising favourite resources

Point of care resources on The Knowledge Network
This session shows the resources available through The Knowledge Network that provide access to summarised, validated clinical evidence and guidance. This includes subscription services like UpToDate and Dynamed and targeted clinical decision support available on mobile devices and PCs.

Keeping Up To Date
This session follows on from Searching The Knowledge Network and focuses on managing new information. It showcases the services which support this: managing favourite resources within The Knowledge Network; table of content and article alerting services; news feeds; reference management services using RefWorks; current awareness services and saved searches.

Social Services Knowledge Scotland (SSKS)
Social Services Knowledge Scotland (SSKS) provides information and learning resources and tools to help social services staff use knowledge in day-to-day work and learning. As well as general training, targeted training is aimed at specific groups including learning disabilities, early years, care and support for older people, residential childcare, leadership and newly qualified social workers.

Community website administration training
Administration training session is available for administrators of Community websites. Free online training on a number of subscription resources including OVID, EBSCOhost, The Cochrane Library, UpToDate and RefWorks is also available.

To book a session please contact Knowledge Services Group, at knowledge@nes.scot.nhs.uk, Tel: 0141 352 2894.

Point of Care Knowledge Support
NHS Scotland staff currently have FREE access to several clinical decision support tools which provide summarised, validated evidence designed to be used at point of care. Use the simple search and browse functions on these resources to access continually updated summaries on 1000's of clinical topics for primary and acute care, nursing and allied health professions.

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Knowledge into Action for Health and Care
What are the benefits of using these resources? These resources provide summarised evidence and guidance; ‘bite sized chunks’ of information, taking the hard work out of collating and assessing current available evidence. Designed to be simple to use and navigate in order to make finding and applying evidence to practice quicker and easier.

Additional materials include clinical calculators, exercise images, patient information sheets and nursing ‘quick lessons’.

How can I access these resources? Find these tools by going to the ‘Point of Care Knowledge’ link on the homepage of The Knowledge Network (www.knowledge.scot.nhs.uk).

DynaMed, UpToDate, Nursing Reference Center and Rehabilitation Reference Center are password-free on NHS premises. Otherwise you will need your Athens* login.

Can I search all of these tools at the same time? You can also search across all of these point-of-care resources by using the targeted Evidence and Guidance search available on The Knowledge Network.

This targeted search returns a refined set of results from the whole Knowledge Network, targeting clinical evidence, evidence summaries and guidelines. Primary research material, e.g. journal articles, are filtered out to focus on secondary, summarised evidence.

For further information about resources and training, contact knowledge@nes.scot.nhs.uk or speak to your local library service.

Help us to maintain our subscription to these services – use them and pass the message on to your colleagues.
Social Services Knowledge Scotland (SSKS)

The Social Services Knowledge Scotland (SSKS) website continues to support Scotland’s social services practitioners in day-to-day work and learning.

Already established as a valuable information gateway for the social services community, SSKS is continuing to grow and develop.

Following on from the successful launch of the new Care for Older People area (http://www.ssks.org.uk/topics-and-resources/care-for-older-people-portal.aspx), further new topic focused areas are being created, due for launch in April 2012. These new areas will pull together quality assured information on early years, drugs and alcohol and criminal justice.

A dedicated area for support workers, providing access to bite sized chunks of information for practice is also due to launch at the same time.

Anyone looking for more information on SSKS, including requesting promotional materials or training sessions, can contact Susan at: Susan.Lindner@nes.scot.nhs.uk