Case Study:
Online fracture risk tool improves patient outcomes

NECS developed an online fracture risk tool to help GP decision making and promote better case finding so that patient outcomes can be improved and costs reduced.

The challenge

In the UK the combined cost of hospital and social care for patients with a hip fracture amounts to more than £2.3 billion per year.

NECS were approached by a GP, who was already a user of the NECS Business Intelligence Tool, RAIDR, and a consultant from a large local hospital. These clinicians had realised that data surrounding patients at risk of fracture was readily available but there was no easily accessible tool to allow them to view the information in a way that would help them manage those patients.

The tasks

- Find a cost effective and accurate software tool to work inside the existing NECS Business Intelligence Tool to allow care providers to view clinical and patient information and proactively manage fracture risk.

- To integrate the software into the well-established NECS Business Intelligence Tool, RAIDR, to provide a solution that enables GPs to quickly identify patients at risk of fracture and allow them to provide appropriate interventions for those patients.

RAIDR
Reporting Analysis & Intelligence
Delivering Results

The execution

The NECS Team worked closely with clinicians to evaluate existing algorithms for identification of patients at risk of fracture, taking into consideration licencing costs, accuracy of output and ability to incorporate into the RAIDR tool. The selected algorithm used clinical and patient information as well as NICE guidance and trial evidence to support the new fracture risk screen in the primary care online dashboard.

The fracture risk screen on RAIDR was developed to help GPs accurately identify patients who are at heightened risk of fracture. For example GPs can assess the 10 year risk of hip fractures for every patient in their practice aged 30-90.

The screen was also designed to benchmark the user against other GP practices in the CCG or locality and show if patients identified as being at risk were being treated. An additional function on the dashboard enables the user to compare rates of osteoporosis diagnosed against the numbers of patients at high risk of hip fracture.

The completed NECS fracture risk tool now gives all GPs using RAIDR the capability to drill down from CCG level to individual patient level and look across different points of delivery on the care pathway.

The result

The creation and rollout of the fracture risk tool has achieved the key objective of encouraging proactive case finding and prevention. This means that GP practices can identify patients at risk of fracture and target treatment to these patients.

For example, the tool showed GPs and nurses that patients receiving prescriptions for bone sparing agents had three times the risk of major fracture and five times the risk of hip fracture. As a result of accessing this information GPs are now able to target these patients for preventive support and in doing so reduce acute admissions.

Dr Mike Scott, Senior Partner, Newburn Surgery endorsed the benefits of the fracture risk tool:

RAIDR has been a huge help to me in improving care especially in areas of COPD and osteoporosis. The RAIDR fracture risk screen gives a detailed breakdown of patients at risk of fracture and hence the opportunity to intervene to prevent life threatening hip fractures. It is intuitive and simple to use.