

PREDICT (Enigma) / VIEW (University of Auckland) Partnership statement; looking forward to 2016.

23rd Dec, 2015

The University of Auckland's, School of Population Health and Enigma Solutions Ltd, have been in partnership with PREDICT, under the 'VIEW' programme of work and its predecessors, since 2002. This partnership continues to support continued research efforts, funded by various, multi-year HRC grants and is of NZ National interest.

This valuable, back-end, research based work sets PREDICT apart from other tools available for clinical use in New Zealand; there is no comparable tool having research based linkages as a primary goal.

Since its formation the aim of the partnership has been to deliver robust, evidence based guidance (mainly related to cardiovascular disease and diabetes) into the patient's care setting to:

- (i) aid consistency and appropriateness of delivered care (minimise variations leading to under or over-treatment);
- (ii) collect data relating to service delivery and through linkage to national (patient outcome) datasets, and thereby
 - a. validate current guideline recommendations and fit for the NZ population and
 - b. improve the specificity of risk prediction approaches for the NZ population by creating a NZ specific set of algorithms based on observed incidence rates.

Secondary aims have included:

- (iii) the creation of secondary risk prediction equations for those who have already had a CVD event;
- (iv) to map variations in treatment and risk profiles geographically for NZ

Organisations that use Predict are invited to opt-in to participate within the research programmes by contributing the data which is collected during their routine clinical services. This data is handled appropriately with sophisticated anonymisation routines and complies with the National Ethics Committee approval granted to the programme.

There are now over 500,000 de-identified individual New Zealand patient profiles within the PREDICT cohort that are available to the VIEW programme for their analysis and linkage to NZ Ministry of Health provided 'outcomes data'. -(vs Framingham's original cohort of just 5,209 patients.)

VIEW has worked towards generating a NZ specific, validated risk prediction algorithm which can be more accurately applied to our own specific population and is more relevant to today's other, wider risk factors such as social determinants of health and medication management. Currently, at the time of writing, an alternative, NZ specific, general population, primary prevention algorithm has been independently peer reviewed in a process organised by the Heart Foundation and it is expected that it will be available in the new year (2016).



Early testing and implementation for demonstration purposes of these new algorithms has begun alongside the peer review process with some interesting findings.

Additionally secondary prevention equations (risk assessments for those who have already had a CVD event) have also been independently peer-reviewed and will be available in 2016 following completion of testing processes.

A third set of new, validated equations are expected to be available specifically for Maori and for Diabetic patients in 2016. This work is expected to be on-going with refinements made to risk prediction approaches, creating more personalised, tailored outputs for NZ's sub- populations.

In 2016, Enigma and VIEW will be launching Your Heart Engine (YHE), a combined set of risk assessment and risk visualisation tools for CVD. This is a centralised service into which each of these newly developed risk calculators will be released. Coupled with this, the Your Heart Forecast tool will be modified to support new scenarios, such as the secondary prevention equations.

CVD / Diabetes electronic clinical decision support (eCDS) tools use an individual's calculated risk as one of the management determinants. The YHE approach is capable of supplying the risk profiles into the eCDS tools so that their management rules can provide management advice according to a patient's estimated risk score.. PREDICT CVDDM will be modified to use the YHE content in this manner, workplace instances of PREDICT already run in this way.

VIEW and Enigma remain fully committed to the continued support and maintenance of the PREDICT eCDS management components; consistent and appropriate (evidence based) management of patient's risk remains the key aim of the programme. The development of Your Heart Engine is one step towards making these management tools simpler, quicker, more cost effective and more consistent; it also strengthens our current focus on quality assurance, doing the job well and doing it once.

The Your Heart Engine (which will include relevant access to the graphic risk communication tools) will be commercially available as a service for other eCDS / CVD RA front-end tools to use. Linking into this centralised service will provide a consistent risk assessment approach across multiple tools and across New Zealand. Enigma and VIEW have an excellent reputation for high quality, clinically orientated implementation of these tools and it is exciting to be able to offer these services out to a wider set of users. For more information visit: <http://www.YourHeartEngine.co.nz>

Through YHE, other tools, vendors and groups of end users will have an option to opt-in to these VIEW based research programmes, this is something which will be fully explored with each new group who adopt YHE as a service.

By continuing to support PREDICT products, you are helping to contribute to these research efforts, which in turn is now paying dividends for NZ's evidence based, population health approaches.

2016 should be an exciting year, we're grateful for your support to-date and hope to continue to deliver quality products which help to support your clinical service delivery for your patients.

Merry Christmas and Happy New Year from your friends at Enigma and our UoA VIEW team collaborators.