Ireland publishes ePrescribing development standards

ePrescribing a key priority in Ireland's eHealth Strategy

In Ireland the process of prescribing medication, particularly in a community setting, has remained largely untouched by developments in information communication technology over the last 30 years. This is perhaps most surprising when the potential benefits of moving to a computerised prescription model have been well understood since at least the turn of the century[1]. Addressing this gap through the development of ePrescribing is a key priority of Ireland's National eHealth Strategy (2013)[2]. For this purpose the Health Information and Quality Authority ('HIQA') has published two new standards for ePrescribing and the electronic transfer of prescriptions.

ePrescribing is generally understood as simply the process of using a computer to generate a prescription. This is most effective when used in connection with the electronic transfer of prescriptions ('ETP') from a prescriber to a dispenser. Combined, these two processes seek to minimise the potential for errors associated with handwritten prescriptions.

HIQA's approach

In November 2012, HIQA published an international review of ePrescribing and ETP in which the systems in six countries were considered in detail. From this HIQA identified a number of fundamental building blocks that must be in place to develop an ePrescribing and ETP system in Ireland, including:

● the introduction of an individual health identifier for citizens and an identifier for health and social care professionals and organisations;

● the development of an interoperability framework and supporting infrastructure to facilitate the electronic transfer of prescriptions; and

● the development of a data model to support the implementation of a national drugs reference catalogue.

With the passing of the Health Identifiers Act 2014, the legislative framework has been put in place to address the first of these building blocks. The two standards published by HIQA in January 2015 - ePrescription dataset and clinical document architecture standard[3] and data model for an electronic medicinal product reference catalogue - a National Standard[4] - seek to address the second and third bullet points, respectively.

ePrescription dataset and clinical document architecture standard

The purpose of this standard is to define a dataset that is relevant to prescriptions and to define how this dataset can be transformed into an electronic document. In order to achieve interoperability on a national and an international stage, HIQA decided to use an international standard known as the Health Level Seven ('HL7') Clinical Document Architecture standard. The use of an international standard is particularly important in light of developments at the EU level that require Member States to recognise the validity of prescriptions from other Member States, including electronic prescriptions[5].

Data model for an electronic medicinal product reference catalogue - a National Standard

A core element of any ePrescribing system is the data model that is used to support the implementation of an electronic medicinal product reference catalogue. This is essentially an electronic dictionary that defines the medications that are available and which facilitates a consistent approach by prescribers and dispensers. The data model adopted by HIQA draws on data models already in use in Australia and the United Kingdom and a collection of five standards known as the Identification of Medicinal Product, developed by the International Standards Organisation.

Legal issues

Whilst HIQA is putting in place the frameworks that will enable ePrescribing and ETP, it will ultimately be third party service providers that will take up the mantle of putting in place systems to implement ePrescribing and ETP in Ireland. Data protection considerations, including privacy by design, will need to be at the core of the development of the final products, and a key issue that will need to be considered is the 'data controller'/'data processor' status of participants in this system and their levels of responsibility and potential liability in connection with any 'personal data' processed by the system.

Next steps

As HIQA continues to lay the building blocks for ePrescribing and ETP in Ireland, the private sector will look to the development of related products and services as a valuable new eHealth-related market to exploit. In addition to the potential to minimise errors, ePrescribing and ETP also open the possibility of far more complex and potentially transformative services. These could include tracking adverse events and building an individual patient history of drug use. With the full implementation of ePrescribing and ETP it is not hard to see the humble illegible handwritten prescription being replaced by a core element of Ireland's planned new eHealth landscape.

Douglas McMahon Solicitor
McCann FitzGerald, Ireland
Douglas.mcmahon@mccannfitzgerald.ie

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4. http://www.hiqa.ie/system/files/Data_model_for_an_electronic_medicinal_product_reference_catalogue.pdf
5. Commission Implementing Directive 2012/52/EU of 20 December 2012.