



# **IMSN Position Paper on Electronic Transmission of Prescriptions**

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## IMSN Position Paper on Electronic transmission of Prescriptions

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This document is intended as a “position paper” and is not to be regarded as a document offering definitive legal advice in relation to the subject matter.

### About the IMSN

The Irish Medication Safety Network (IMSN) is an independent group of pharmacists and other specialists working in the acute sector, whose principal aim is to improve patient safety with regard to the use of medicines through collaboration, shared learning and action.

The following is a position paper from the IMSN on the electronic transmission of prescriptions in Ireland. This paper proposes mechanisms by which the use of electronic transmission of prescriptions can improve and enhance medication safety in Ireland.

## Executive Summary

The Irish Medication Safety Network (IMSN) advocates for an integrated system that ensures that medicines information flows without restriction or distortion throughout the health system. Electronic transmission of prescriptions, enabled in 2020 by COVID-related legislative changes is a step forward for medication safety, provided that potential risks are addressed.

This document outlines the IMSN position on implementation of electronic transmission of prescriptions in the secondary care setting and related medication safety considerations. It will consider the common barriers and facilitators to implementation of this change in practice, with reference to similar systems in place in other countries. It examines the risks associated with this change and recommends certain risk reduction strategies. It will outline short- and long-term goals and the resources required to achieve these goals. Direct and indirect costs associated with medication errors, along with better business intelligence, operational efficiencies and process optimisation would offset initial investments in implementation.

The IMSN calls for the engagement of all relevant stakeholders to engineer a medication use process that supports clinicians and protects patients from avoidable harm. The IMSN vision is illustrated in the scenario below.

*Mary has attended her GP for 5 years. Her entire medication history flows from the GP electronic health record to a national summary care record (SCR). Any new prescription is issued via a national prescription hub to the community pharmacy of her choice. The community pharmacy can retrieve the prescription details from the national prescription hub using a token presented by the patient in paper or electronic form. The pharmacist can access the national SCR, and clinically review the prescription. All prescription and patient details flow into the pharmacy informatics system without transcription. The pharmacist selects the appropriate product and barcode scanning, using Falsified Medicines Directive hardware and software, confirms that the selected product matches the medication prescribed, while also recording batch details and verifying that the product is in date. Dispensing data flows into the SCR where adherence data are automatically generated. Mary can access a patient portal where she can see her national SCR, and also access patient information leaflets for her medicines along with educational content uploaded by her pharmacist.*

*When Mary requires hospital admission, the current medication list can be imported into the hospital's electronic health record and form the basis of the admission medication reconciliation. Medicines started, changed or stopped during the hospitalisation are automatically added to the discharge summary which is integrated into the SCR. The discharge reconciliation process generates a prescription that flows to the national prescription hub as above.*

To achieve this vision, the IMSN call for

- Engagement of all relevant stakeholders to engineer a medication use process that supports clinicians and protects patients from avoidable harm.
- Interoperability between disparate eHealth systems to be a legislative requirement for them to be used within the Irish health system.
- Common data models for the patient (Individual Health Identifier), medicinal products (national product catalogue incorporating SNOMED codes), medicines information (PILs, trusted health information resources), health care provider (professional registration numbers) and the patient's hospital admit/discharge/transfer status.

## Recommendations from the IMSN ePrescribing Working Group

### General

- The IMSN fully supports the National eHealth Strategy in the full implementation of a more comprehensive ePrescribing strategy.
- The IMSN supports the introduction of electronic prescription transfer as a stepping stone to the development of a comprehensive ePrescribing system, fully integrated into a national electronic health (eHealth) system in Ireland.
- The IMSN recommends that the potential patient safety enhancements available in ePrescribing infrastructure be prioritised in any future developments of this arrangement.
- The IMSN recommends that any prescription transmission process introduced should minimise manual processes, using the minimum number of steps to produce the outcome required. Any prescription transmission process introduced must provide for:
  - secure transmission of documents,
  - storage of the document in the patient's permanent healthcare record,
  - automatic deletion of the document from the transmission system (i.e. remove prescriptions from e-mail accounts on the sender side).
- In order to facilitate traceable prescribing, the IMSN recommends the allocation of national e-mail accounts for all healthcare workers, which can move with the person to the various institutions in which they work and integrate with all necessary software.
- The process of medicines reconciliation at discharge should be incorporated into any electronic system, integrating prescription generation and transmission.
- Development of a prescription repository or 'hub' to store prescriptions transmitted to enable community pharmacists to retrieve transmitted prescriptions.
- Comprehensive education and training must be provided to clinical and non-clinical staff using ePrescribing, eTransmission and electronic health records.

### Legislation

- Stakeholders require legislative clarity defining what constitutes 'traceable' and 'unalterable' prescriptions with specific reference to file formats and transmission processes.

### Prescription generation

- A standardised prescription format should be used by all hospitals, ideally through an Electronic Health Record (EHR) or, in the interim, through the use of a template that may be incorporated directly into an e-mail or as an unalterable attachment to an e-mail.
- The medication list should be automatically imported into the discharge summary/letter with clear documentation of any changes to medication, without any need for transcription.

### **Prescription transmission**

- Hospital software should enable the direct transmission of prescriptions directly from their electronic prescribing module, if one exists.
- The transmission process should minimise manual processes for the prescriber, utilising technical infrastructure and software to minimise transcription from the EHR, and the use of a national prescription repository to store prescriptions transmitted.
- There is a need for a secure national system to look up Healthmail addresses of Pharmacies and GPs. Such a system should be nationally maintained, using standardised naming convention and must be searchable by any element of the pharmacy name/location. The required e-mail address should be automatically copied to clipboard when clicked.

## Glossary of Terms

<b>DPS number</b>	Unique patient number for use with the Drugs Payment Scheme.
<b>EHR</b>	Electronic Health Record
<b>GMS Number</b>	Unique patient number for use with the General Medical Services (GMS) Scheme (also known as 'Medical Card' scheme).
<b>High Tech Hub</b>	The high tech ordering and management system or 'hub' is a computerised system that allows prescribers to register patients and produce prescriptions for High Tech Medicines. It allows pharmacists to place orders for these medicines, and for suppliers to receive orders.
<b>High Tech Medicines</b>	Arrangements are in place for the supply and dispensing of High Tech medicines through Community Pharmacies. Such medicines are generally only prescribed or initiated in hospital and would include items such as anti-rejection drugs for transplant patients or medicines used in conjunction with chemotherapy or growth hormones.
<b>Healthlink</b>	Web-based messaging service which enables the secure transmission of clinical patient information between hospitals, healthcare agencies and GPs.
<b>HSE</b>	Health Services Executive
<b>IMSN</b>	Irish Medication Safety Network
<b>MDA medicines</b>	Misuse of Drugs Act medicines (also known as Controlled Drugs). Prescriptions for MDA Schedule 2 and 3 controlled drugs have certain extra legal requirements.
<b>NCHD</b>	Non-Consultant Hospital Doctor
<b>NEPTS</b>	National Electronic Prescription Transfer System: a system providing for the transfer of prescriptions, in permanent and unalterable form, by electronic means approved, on behalf of the Health Service Executive, by the PCRS and the Chief Information Officer.
<b>PIL</b>	Patient Information Leaflet (contained in the original packaging of the medicine)
<b>SCR</b>	Summary Care Record
<b>SmPC</b>	Summary of Product Characteristics. A document describing the properties and the officially approved conditions of use of a medicine. Summaries of product characteristics form the basis of information for healthcare professionals on how to use the medicine safely and effectively
<b>SNOMED</b>	Systematized Nomenclature of Medicines- standardised, international, multilingual core set of clinical healthcare terminology that can be used in electronic health records

## **1. Introduction**

Electronic prescription transfer is the process by which a prescription is securely transmitted to a pharmacy for dispensing. In contrast, ePrescribing is a more structured process, whereby a prescription is electronically generated by a prescriber (ideally using an integrated clinical decision support tool), authenticated via an electronic signature and is integrated into the patient's health record. The system for electronic prescription transfer introduced in 2020 falls short of ePrescribing but is a welcome initiative with benefits to patient care and medication safety.

This position statement sets out the principles the IMSN considers should underpin a functional electronic prescription transfer system for Irish hospitals.

The National eHealth Strategy<sup>1</sup> advocates for a national approach to the implementation of electronic prescription transfer. The goal ePrescribing in Ireland is to reduce medication errors, thereby increasing patient safety, reducing the costs incurred by errors and expediting patient access to medication. When fully implemented, ePrescribing should enhance the safety and quality of patient care and the quality use of medicines in Ireland through the sharing of accurate information about medication between the prescriber, the dispenser and other relevant health care providers. It has been internationally recognised that national efforts to enhance patient safety are critical and that the initial investment costs in such projects are offset by the direct and indirect cost savings relating to medication errors and operational efficiencies<sup>2</sup>.

Historically, discharge prescriptions from hospitals are handwritten on paper prescriptions which are available in multiple pad formats. Healthmail is a secure messaging system with safeguards to ensure that all transmitted prescriptions come from a Healthmail user or from an e-mail address within a recognised affiliated institution (e.g. hospital).

The IMSN working group recognises that the use of technology in this area could also deliver benefits in terms of removing blank paper prescription forms and reducing the associated risk of fraud. These risks and benefits need to be balanced against the patient's right to choose their own pharmacy and their right to information regarding their prescription.

### **1.1 eHealth and ePrescribing**

eHealth (Electronic Health) involves the integration of all information and knowledge sources involved in the delivery of healthcare via information technology-based systems<sup>3</sup>. This includes patients and their records, caregivers and their systems, monitoring devices and sensors, management and administrative functions. It is a fully integrated digital 'supply chain' and involves high levels of automation and information sharing. The eHealth strategy for Ireland has a number of strategies and goals focusing on key areas, one of which is ePrescribing.



ePrescribing is described as “the generation of prescription information, the transfer of prescription information and the dispensing of the prescription electronically using a dedicated system”. The Health Information and Quality Authority (HIQA) in Ireland have undertaken thorough reviews of ePrescribing<sup>4-7</sup>.

The 2012 report<sup>4</sup> explored electronic transfer of prescriptions in six jurisdictions which had commenced implementation of ePrescribing solutions and this provided evidence to support the development of electronic transfer of prescriptions in Ireland.

Internationally, different models of implementation have been adopted around ePrescribing including:

- Paper prescription with printed barcode (Northern Ireland, Wales)
- Message broker for prescriber-to-dispenser transmission (Denmark)
- Electronic Prescription Exchange: Prescription is ‘pushed’ by prescriber and ‘pulled’ by pharmacist (Sweden, Norway, England, Scotland).

Countries who have implemented ePrescribing have usually built upon a broad foundation of national eHealth infrastructure including national health identifiers, national authentication services (for healthcare professionals) and national medication catalogue/reference databases. Many national ePrescribing projects have started using less complex solutions, such as printed barcodes on paper prescriptions, and have then added additional layers of functionality and technical solutions on this foundation

Electronic prescription transfer requires that both the prescriber and pharmacist are utilising electronic systems to generate/dispense the prescription and the prevalence of such systems is much higher in primary care compared to secondary/tertiary care.

The HIQA reviews acknowledge that ePrescribing programmes have been shown to provide a range of benefits including improved patient safety and clinical outcomes, time savings, efficiency gains, transparency/fraud detection and cost savings<sup>4-6</sup>.

## **2. Legislation providing for electronic transfer of prescriptions in Ireland**

Under the 'Covid-19 Emergency Provisions', temporary amendments to the Medicinal Products (Prescription and Control of Supply) Regulations 2003 and the Misuse of Drugs Regulations were made<sup>9-11</sup>. The amendments allow for the electronic transfer of prescriptions between prescribers and pharmacies via the National Electronic Prescription Transfer System and remove the need for the original paper prescription.

The initial approved system for this transfer is the HSE's Healthmail System. From August 2020 the High Tech Hub was also recognised as part of the national electronic prescription transfer system, used exclusively for the prescribing, ordering and dispensing of High Tech Medicines.

### 3. Use of technology in transmission of prescriptions

#### 3.1 Healthmail

Healthmail is a secure clinical e-mail service that allows health care providers to send and receive clinical patient information in a secure manner. Healthmail has been in operation since 2014 with the original purpose of securing e-mail communication between GPs and hospitals. An evaluation was carried out in early 2017 to gauge satisfaction with the service; as part of this study, GPs were asked which other groups they would like to see join and this included community pharmacies, nursing homes, optometrists and dentists. The expansion of Healthmail has followed this course, expedited by the need for communication between these groups of healthcare professionals at the onset of the COVID-19 pandemic.

E-mails are encrypted when sent securely through the Healthmail system, via one of the following methods:

- Using the registered Healthmail account (@healthmail.ie) of a general practitioner attached to a practice, a supervising pharmacist working in a pharmacy, a person in charge of a registered nursing home or a lead optometrist in a practice  
*or*
- Using the official e-mail accounts of hospitals and health agencies that are securely connected to Healthmail. For example, @hse.ie; @[voluntary hospital name].ie.

#### 3.2 Requirements for electronic transfer of prescriptions

To meet the requirements for a legally valid prescription via the NEPTS, the prescription must:

- be in an unalterable electronic form,
- be transmitted by the national electronic prescription transfer system (i.e. Healthmail or Healthmail connected agencies),
- clearly indicate the date of issue,
- clearly indicate the professional registration number of the prescriber, and
- be traceable electronically back to the issuer.

All other prescription requirements under the relevant legislation must still be met<sup>8-11</sup>.

Various approaches to electronic transmission are feasible within the prescription requirements whereby:

1. The prescriber handwrites a prescription which is scanned and attached to the Healthmail e-mail.
2. The prescriber generates an electronic prescription either through the use of a prescribing module or prescription template and this is then attached to the Healthmail e-mail.
3. The prescriber provides the prescription details in the main body of the Healthmail e-mail.

A prescription sent through Healthmail is directly traceable back to the prescriber and therefore a signature (electronic or otherwise) is not required on the prescription.

These provisions also include prescriptions for Schedule 2, 3 and 4 Controlled Drugs. For Schedule 2 or 3 Controlled Drug prescriptions, the prescription writing requirements still apply with the amendment that these do not need to be in the prescriber's own handwriting.

### **3.3 Prescription Transmission through Healthmail**

Depending on a prescriber's software system, some prescribers are able to send prescriptions directly from their prescribing module to Healthmail. If this is not possible, the prescriber may scan the original prescription and send it as an attachment via Healthmail or include the prescription within the body of an e-mail.

In all cases where Healthmail is used to send prescriptions, the prescriber must know the specific Healthmail address of the pharmacy that the patient intends to use. A list of registered user e-mail addresses can be obtained from Healthmail for reference. However, automatic access to the integrated Healthmail directory is limited to Healthmail. Healthmail 'connected agencies' (e.g. hospitals) do not have automatic access to the directory but may consider local integration of the directory into their organisations' e-mail systems.

Any prescription sent electronically outside the National Electronic Prescription Transfer System (i.e. Healthmail or agencies that are securely connected to Healthmail) is not recognised as a legally valid prescription under the amended legislation. It will also not deliver successfully to the intended recipient.

### **3.4 Implementation of electronic transfer through Healthmail across healthcare settings**

The emergency legislation which introduced the electronic transfer of prescriptions has facilitated substantial uptake in the primary care setting. Secondary and tertiary care institutions are at varying stages of the implementation process. Systems of work, including use of paper versus electronic prescribing/electronic patient records, differ between secondary care institutions. Implementation considerations may differ across sites, depending on local workflows.

## **4. Challenges with Electronic Transfer of Prescriptions via Healthmail**

The introduction of eTransmission of prescriptions via Healthmail was a measure introduced in response to the COVID-19 Pandemic in early 2020, aiming to ensure continuity of treatment to patients while reducing in-person attendance at GP practices. The rapid legislative changes and adoption have led to a number of challenges for hospitals and GP practices detailed below.

### **4.1 Flow of medication information to and from hospitals in the Irish healthcare setting**

To understand the challenges involved, it is important to be cognisant of the historic/current workflow for medication information in the Irish healthcare setting. Multiple workflows have been developed over recent decades for the transmission of medication information to and from hospitals.

At the time of writing, transmission of prescriptions out of hospitals involved one of the following options:

- a. Paper-based prescription given to patient for delivery to a pharmacy.
- b. Electronically generated + printed + automatically copied to GP practices registered with Healthlink
- c. Electronically generated + printed or electronically generated + e-mailed.
- d. Electronically generated + printed
- e. The use of 'read-receipts' on e-mails

Receipt/transmission of prescriptions into hospitals involved either

- a. Paper-based from retail pharmacy.
- b. Electronic transfer from GP practices
- c. Electronic transfer and by mail of original prescription

### **4.2 Potential risks with electronic transfer of prescriptions to Community Pharmacies via Healthmail**

The IMSN working group has identified multiple risks associated with implementation of the electronic prescription transfer system from the hospital perspective that should be addressed to ensure the process is robust and optimises patient safety (Figure 1).

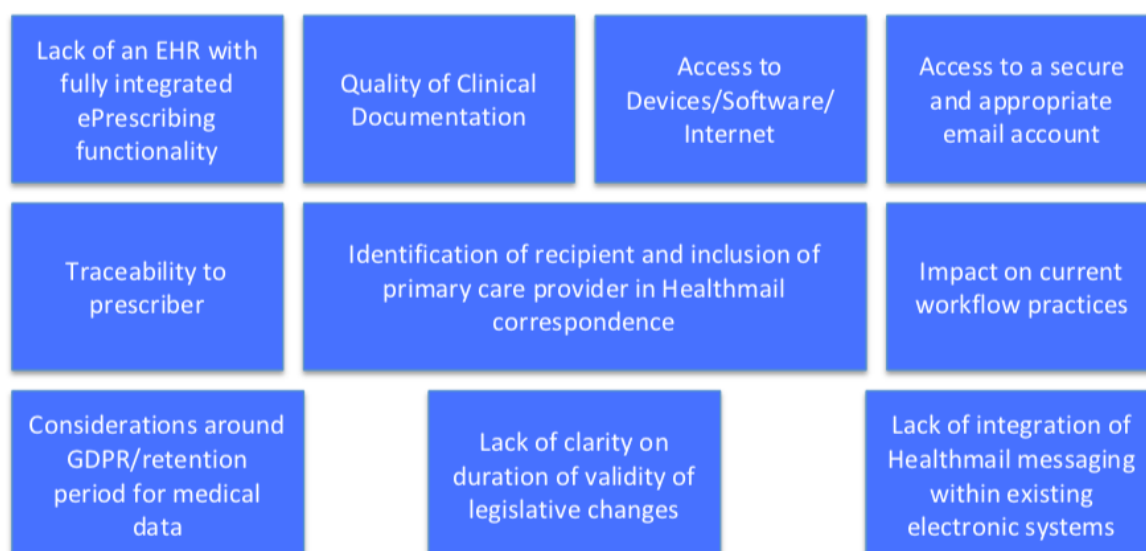


Figure 1: Potential risks with electronic transfer of prescriptions to/from hospitals

#### **a. Lack of an Electronic Health Record (EHR) with fully integrated ePrescribing functionality**

The vast majority of primary care GP practices use electronic health records. Most of these programmes offer integrated generation of prescriptions which can be linked to the transfer of prescriptions via Healthmail. Such software is not yet available or utilised in the vast majority of hospitals in Ireland. Until such time as health records are stored electronically, hard-copies of any electronically transmitted prescription will be required to be stored in the patient's hard-copy notes. This applies to both hospitals where there is no EHR, and hospitals where EHR is used but has no integrated ePrescribing function.

*Identified risk:* There is a risk that this manual process may be omitted where a prescriber is transferring the prescription electronically.

*Recommendation:* The IMSN working group recommends that ePrescribing should be integrated into existing and future GP and hospital data management systems and software to facilitate ease of information exchange.

#### **b. Quality of Clinical Documentation**

There are several potential risks associated with the quality of the clinical documentation, some of which are not exclusive to electronic systems. However, processes which may be implemented to facilitate eTransmission of prescriptions can result in additional risks.

*Identified risks:*

- Risk of incomplete prescriptions if prescribers do not use a structured template/prescription
- Risk of unclear prescriptions if e-mail formatting results in misalignment of text on printing of the prescription

- Risk of incomplete patient records if prescription not filed appropriately
- Risk of prescription for wrong patient being sent/attached if robust naming convention of scanned or saved documents not applied.

*Recommendations:* The IMSN working group recommends implementation of an EHR, which would allow for all patient information to be available to all members of the healthcare team and would provide a safety net for potential errors in clinical documentation. Comprehensive education and training must be provided to clinical and non-clinical staff using ePrescribing, eTransmission and electronic health records.

#### **c. Access to Devices/Software/Internet**

Additional requirements for electronic transmission to and from hospital pharmacies may include the need for the relevant hardware and software including a designated computer, printer, scanner and/or a pdf writer. In addition, it may be difficult to save the prescription generated in a local folder and ensure restricted access to confidential information. Subsequently, processes must be in place to ensure data is deleted/purged after an appropriate time-frame (note: this is relevant for workflows which involve the generation of PDFs/word documents).

*Identified risks:* Lack of essential software tools and data governance issues.

*Recommendation:* The IMSN working group recommends substantial investment in I.T. infrastructure to ensure access to eHealth solutions in all hospitals.

#### **d. Access to a secure and appropriate e-mail account**

Prescribers are often not allocated HSE/hospital e-mail addresses due to the frequency of NCHD rotations. This may result in an intermediary (administrative or clinical staff) transmitting prescriptions on a prescriber's behalf. This workflow is not directly addressed within the current legislation. In order to transmit through Healthmail, institutions must be registered with Healthmail and all users must have institution or HSE e-mail account. Prescriptions from other professional e-mail accounts (e.g. universities) are not considered appropriate for the transmission of prescriptions. The prescription must come from the institution from which the prescription is being generated.

*Identified risks:* Lack of access for prescribers (e.g. rotating NCHDs) to secure and appropriate e-mail accounts and use of alternative non-prescriber accounts

*Recommendation:* The IMSN working group recommends that all prescribers have access to a secure e-mail address which can move with the prescriber throughout their training and education in Ireland.

#### **e. Traceability to prescriber**

The legislation states that the prescription must be unalterable and traceable to the prescriber. If the prescriber sends it from their hospital/Healthmail provided e-mail, it will be traceable. This may include instances where documents are attached to the e-mail or where the prescriber includes the prescription in the body of an e-mail, or the prescriber uses an intermediary mail account for transmission.

*Identified risk:* Transmission of a prescription through an intermediary account in the absence of an appropriate e-mail.

*Recommendation:* The IMSN working group recommends that clarity on the ways in which a prescription can be traceable to a prescriber must be provided (e.g. direct emails, digital signatures, and other national level health professional identifiers).

#### **f. Identification of appropriate recipient for electronically transferred prescriptions and inclusion of primary care provider**

Hospitals may need to consider the recording of a patient's preferred community pharmacy in the patient administration system at the point of registration to ensure subsequent prescriptions generated are electronically transferred to the correct recipient. This change in work processes within the hospital setting may be compromised if patients attend multiple pharmacies based on opening hours/proximity etc. Additionally, in the current process, there is no formal requirement to include a patient's GP when transferring prescriptions to community pharmacies.

*Identified risk:* Recording and selection of an incorrect recipient pharmacy in patient records.

*Recommendation:* The IMSN working group recommends the development and use of a secure national hub/exchange for prescriptions, rather than directly e-mailing a prescription to a designated pharmacy. This would preclude the need to confirm the recipient of an electronic prescription, reducing the risk of an incorrect pharmacy being selected. Furthermore, it would offer freedom for patient to attend a pharmacy of their choice and/or multiple pharmacies in the event that a medication was unavailable in their pharmacy of choice or if their usual pharmacy is closed when they leave hospital.

*Identified risk:* Healthmail addresses may not be easily available at point of prescribing.

*Recommendation:* The IMSN working group considers it essential that pharmacy Healthmail addresses are available at the point of prescribing. There should be a system for pushing updates to all users. This would involve the following:

- a) A secure national system/database to look up Healthmail addresses of pharmacies and GPs within e-mail accounts (e.g. process to upload a file to the address book of the organisation), electronic prescribing systems and hospital intranets.
- b) Uniform and appropriate formatting of Healthmail address file to enable the use of different search fields.



c) Controls to minimise selection error e.g. naming conventions

*Identified risk:* In the current process, there is no formal requirement to include a patient's GP when transferring prescriptions to community pharmacies. If a patient's GP is not included in the electronically transferred prescription to a pharmacy, there is the risk that the patient's primary care record will not be updated to reflect the recent hospital review/admission.

*Recommendation:* The IMSN working group recommend that a patient's GPs be included in Healthmail correspondence to allow appropriate medicines reconciliation. Where feasible, the GP should receive the discharge prescription/medication list as part of a discharge summary. The correspondence should also include details of any changes to medication made during the in-patient stay. Furthermore, the IMSN recommends consultation with GPs to identify the most appropriate mechanism for this information transmission.

**g. Impact on current workflow practices**

To facilitate the ability to electronically transfer prescriptions from hospital departments via Healthmail, existing work processes have been considerably altered. However, gaps in the education and training and ultimate ownership of specific tasks have come to light.

*Identified risks:* The processes involved in eTransmission of prescriptions may result in substantial changes in workflow. Whether transmission is carried out by the prescriber or an intermediary, there must be practices in place to reduce the risk of selection errors when selecting recipient or attaching documents. Where eTransmission is delayed until the end of a clinic/day, there is also a risk that the patient will experience delays in receiving their medication(s).

*Recommendation:* The IMSN working group recommends clear lines of responsibility and accountability for scanning and e-mailing of prescriptions where required, and the development of appropriate training and education for staff involved in these processes.

- Consensus opinion that preferred workflow in hospital setting would involve the use of the prescriber's dedicated institutional e-mail (i.e. @hse.ie or @[hospitalname].ie).
- Use of an intermediary to e-mail prescriptions may be acceptable, acknowledging the potential risks outlined above.
- It would be useful if prescriptions could be forwarded to the hospital pharmacy staff for clinical review and subsequently be forwarded on to the community pharmacy if appropriate. This may only be possible where hospital pharmacies are appropriately resourced and/or where EHR are available to carry out the clinical review.
- Inclusion of the patient's contact number would facilitate notification when the prescription is ready for collection from the Community Pharmacy.

**h. Lack of clarity on duration of validity of legislative changes (absence of sunset clause)**

There has been extensive uptake of electronic prescription transmission in primary care to date although the duration of the legislative changes is unknown.

*Identified risk:* The long term validity of electronic transmission legislation must be addressed in order to facilitate investment and development of systems to support the necessary change in workflow in secondary care.

*Recommendation:* The IMSN working group recommends that a timeline for the use of Healthmail or introduction of other eTransmission systems be communicated with stakeholders.

#### **i. Lack of Integration of Healthmail messaging within existing electronic systems**

Multiple electronic systems are common within the secondary system in the Irish setting.

*Identified risk:* Risk of errors/omissions if dual or hybrid processes develop within hospitals.

*Recommendation:* The IMSN working group recommends that systems introduced for the eTransmission of prescriptions be integrated into existing and emerging electronic systems.

#### **j. Considerations around GDPR/Retention period for medical data**

A number of issues pertaining to compliance with data protection and the principles of Data Storage Limitation and Integrity and Confidentiality are pertinent for electronic transfer of prescriptions through Healthmail. There are also considerations regarding medical indemnity requirements. The use of the phrase 'unalterable' prescription in the legislation suggests that PDF document transfer may be preferred over other forms of documentation

*Identified risks:*

- Data protection: storage and management of sent e-mails, PDFs/scanned documents generated.
- Patient confidentiality: sent e-mails containing prescriptions/presence of patient identifiers.
- Cross-border transmission of prescriptions.

*Recommendation:* The IMSN working group recommends that Healthmail integrated systems and/or eTransmission compatible software is designed with the appropriate data protection and patient confidentiality requirements.

## 5. Prescription Template

Legislation changes support the electronic transmission of a prescription where the prescriber provides the prescription details in the main body of the Healthmail e-mail.

In order to reduce the risk of transcription errors, the IMSN recommends the general principal that, where feasible, prescription information from hospital software can be extracted to generate the final prescription which can be electronically transmitted without a transcription step. This requires a level of interoperability between hospital software and other healthcare providers' information systems.

See Appendix 1 and 2 for sample formats.

## 6. Conclusion

The IMSN supports the National eHealth Strategy in the full implementation of a more comprehensive ePrescribing strategy, including the introduction of electronic prescription transfer as a stepping stone to the development of a comprehensive ePrescribing system, fully integrated into a national electronic health (eHealth) system in Ireland. The IMSN working group recommends that an EHR and ePrescribing system be integrated into existing and future GP and hospital data management systems and software to facilitate ease of information exchange, supported with clear procedures, education and training.

The use of such systems offers an opportunity to enhance patient safety through the increased sharing of patient information between connected healthcare agencies.

However, it is imperative that any prescription transmission process introduced provides for secure, timely and traceable transmission of documents. In order to facilitate this, the IMSN recommends that prescribers have access to a secure e-mail address which can move with the prescriber throughout their training and education in Ireland.

The IMSN working group recommends the development and use of a secure national hub/repository for prescriptions, rather than directly e-mailing a prescription to a designated pharmacy, reducing the risk of transmission errors and offering choice to patients.

A standardised prescription format should be used by all hospitals, ideally through an EHR or, in the interim, through the use of a template. Furthermore, primary care health providers should be included in all transmission of medication information to allow appropriate medicines reconciliation at all stages of patient care.

## Appendix 1: Sample Prescription format

PRESCRIPTION						
Sample Hospital						
<b>Note:</b> This is a prescription. The duration refers to the duration of the prescription. Information regarding the ongoing treatment plan for a medicine can be obtained separately, if necessary, from the responsible physician.						
Patient Name:				Gender:		
Date of Birth:				Hospital Number /MRN:		
Weight (kg):				Date measured:		
Address:						
Patient's contact phone number:				DPS/GMS number:		
Department:				Primary Consultant:		
Known Allergies:						
Drug	Dose	Route	Frequency	Duration/ Quantity	Repeat by (if applicable)	Comment
Medication stopped			Reason for stopping			
Medication changes [optional*]			Reason for change [optional]			
Date of issue:						
Prescriber Name:						
Prescriber Registration number (MCR./PIN)			Contact/Bleep Number:			

\* Optional fields: Consider feasibility of supporting medication reconciliation processes in line with local workflows

## Appendix 2: Sample Controlled Drug Prescription format

CONTROLLED DRUG PRESCRIPTION					
Sample Hospital					
<b>Note:</b> This is a prescription. The duration refers to the duration of the prescription. Information regarding the ongoing treatment plan for a medicine can be obtained separately, if necessary, from the responsible clinician.					
Patient Name:				Gender:	
Date of Birth:				Hospital Number/MRN:	
Weight (kg):				Date measured:	
Address:					
Patient's contact phone number:				DPS/GMS number:	
Department:				Primary Consultant:	
Known Allergies:					
Drug Name	Strength	Form (e.g. liquid, tablets, capsules, sachets etc)	Dose, route, frequency and directions	Total Quantity in Figures	Total Quantity in words
Comments:					
Prescriber Name:				Date of issue:	
Prescriber Registration number (MCR./PIN)				Contact/Bleep Number:	

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