

## APPENDIX I

### Task list and definitions

#### Review

Review of medication chart and/or medical notes. The process of reading or clinically assessing the medication chart, reading and writing notes in the record, or calculating doses. It starts when the pharmacist picks up (logs in) and reads/annotates the medication chart/medical notes and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Review the medication chart</li><li>• Reviewing medical notes</li><li>• Reviewing pathology results</li><li>• Reviewing handover</li><li>• Ordering tests for TDM</li><li>• Signing the medication chart</li><li>• Reviewing and signing the medication chart during ward round</li><li>• Annotating drug chart</li><li>• Checking missed doses</li></ul>	<ul style="list-style-type: none"><li>• Looking for the medication chart</li><li>• Transcribing</li><li>• History taking</li><li>• Medication discussion</li><li>• Discharge medication review</li><li>• Discharge reconciliation and checking the discharge prescription with the medication chart and/or medication history and reconciliation form.</li></ul>

#### Discharge medication review (D/C med rev)

The process of reviewing medications on discharge, or entering information to an EDS anytime during the admission. It starts when the pharmacist reviews the medications within the electronic discharge summary and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Reconciliation within the electronic discharge summary</li><li>• Ascertain regular medications at the point of discharge</li><li>• Reconciliation against inpatient chart and admission history</li><li>• Checking the EDS that the doctor has prepared</li><li>• Transcribing from drug chart into EDS</li></ul>	<ul style="list-style-type: none"><li>• Review</li><li>• History taking</li><li>• Transcribing</li></ul>

### **History taking (Hx taking)**

The process of information gathering, in particular taking a medication history and reconciling medications on admission or anytime time during hospital stay. It starts when the pharmacist collects data (from a variety of sources), which may be recorded on a medication history/reconciliation form and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• All things historically</li><li>• Collecting data from a patient, carer or relative to record on a medication history and reconciliation form (paper or electronic) Faxing/phoning GP, local pharmacy</li><li>• Accessing summary care records/personally controlled electronic health record</li><li>• Coming back later during the admission to verify medications that the patient was taking before being admitted</li><li>• Includes reconciliation of patients own drugs</li><li>• Asking about allergies</li></ul>	<ul style="list-style-type: none"><li>• Asking about medications that have been started in hospital</li><li>• Review</li><li>• Transcribing</li><li>• Providing medication information</li></ul>

### **Medication discussion (Med disc)**

The process of talking about anything related to medications including communicating interventions, taking orders, and other medication related communication, initiated by anyone. It starts when the pharmacist engages in a medication related discussion and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Conversations and communication about medications with anyone (doctor, nurse, pharmacist, patient, etc).</li><li>• Phone calls and talking face-to-face with another</li><li>• Clinical conversations on the ward round</li><li>• Questions to medical or nursing staff about discharge prescription</li><li>• Phone calls, fax or written communication to external providers</li><li>• Asking a patient about medications that have been started in hospital</li><li>• Any conversation with the patient and/or carer about how to use or obtain medication.</li><li>• The process of clarifying medication issues</li></ul>	<ul style="list-style-type: none"><li>• History taking</li><li>• Discharge dispensing</li><li>• Meetings</li><li>• Social activities</li><li>• Communication</li></ul>

### **Communication (Comm)**

#### *Work-related discussion*

The process of communicating with other health professionals about work-related things excluding medications. It starts when the pharmacist engages in a work-related conversation that is not about medications and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Any discussion about work, patients, handover.</li></ul>	<ul style="list-style-type: none"><li>• Any discussion about medications.</li><li>• Social activities</li></ul>

### *Social conversation*

The process of having a social conversation. It starts when the pharmacist engages in a conversation that is not medication or work related and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Any discussion about the weekend, weather and other social things.</li></ul>	<ul style="list-style-type: none"><li>• Any discussion about medications.</li><li>• Social activities</li></ul>

### **Drug reference (Drug ref)**

The process of seeking drug information from references. It starts when the pharmacist consults reference material and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Consulting reference material</li><li>• Contacting Medicines Information</li><li>• calculating drug dosages</li></ul>	<ul style="list-style-type: none"><li>• Medication discussion</li><li>• History taking</li><li>•</li></ul>

### **Supply**

#### *Dispensing*

The process of dispensing medications for patients at discharge. It starts when the pharmacist starts dispensing and ends when the next task is observable. Any activity in the dispensary.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Phone calls or conversations to obtain health benefit entitlement numbers</li><li>• Dispensing (data entry, product selection, labelling and checking)</li><li>• Checking items dispensed by technician</li><li>• Any activity in the dispensary related to dispensing</li></ul>	<ul style="list-style-type: none"><li>• Medication discussion</li><li>• Work-related discussion</li><li>• History taking</li><li>• Providing drug/health information</li></ul>

### *Stock*

The process of maintain ward stock. It starts when the pharmacist establish the need to replenish stock and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Phone calls or conversations to order drugs</li><li>• Supplying drugs for ward stock or bedside drawers including dispensing for individual patients</li><li>• Destruction of expired medications</li><li>• Review of drug requisition book</li><li>• Any activity undertaken on the ward relating to medication supply</li></ul>	<ul style="list-style-type: none"><li>• Medication-related discussion</li><li>• Work-related discussion</li><li>• Discharge dispensing</li><li>• Review</li></ul>

### **Transcribing**

The process of writing medication orders either re-writing or checking a drug chart, supervise charting, independent prescribing or training a prescriber how to use the electronic medicines management system (eMMS) to order medications. It starts when the pharmacist checks, transcribe or supervise drug charting and ends when the next task is observable.

### *Transcribing*

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Re-writing drug chart</li><li>• Checking re-written drug</li></ul>	<ul style="list-style-type: none"><li>• Medication discussion</li><li>• Prescribing</li></ul>

### *Supervised charting*

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Sitting down with a prescriber and entering medication orders based on guidelines and local protocols</li></ul>	<ul style="list-style-type: none"><li>• Prescribing</li><li>• Training prescribers how to order medications in the eMMS</li></ul>

### *Training of prescribers to use eMMS*

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Explaining or showing prescribers how to use the eMMS to prescribe</li><li>• Showing prescribers shortcuts to use to make prescribing easier</li><li>• Talking with a doctor about a medication if the notion is to show</li></ul>	<ul style="list-style-type: none"><li>• Independent prescribing</li><li>• Medication discussion</li></ul>

them how to prescribe	
-----------------------	--

*Prescribing*

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"> <li>• Prescribing initiated by pharmacists</li> </ul>	<ul style="list-style-type: none"> <li>• Supervised charting (where the doctor prescribes)</li> </ul>

**Non-clinical tasks (non-clin tasks)**

*Looking for something*

The process of locating something. If walking to the place where folders are usually kept (in transit) but can't find the folder and starts looking around (looking for something). It starts when the pharmacist starts looking around for something and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"> <li>• Looking for drug chart, notes, colleague, drugs, drug cupboard keys, computer.</li> <li>• Patients' own medications.</li> <li>• Looking for telephone/pager numbers/name of doctors, patient, family member/carer.</li> <li>• Walking up and down corridor to locate the chart, notes etc.</li> <li>• Asking colleagues where the chart, notes etc. is.</li> <li>• Looking for equipment including computers</li> </ul>	<ul style="list-style-type: none"> <li>• Waiting for located thing to become available.</li> <li>• Medication discussion</li> <li>• Communication</li> <li>• In transit</li> </ul>

*Waiting*

The process of waiting for something to become available once located. It starts when the pharmacist has located notes, chart etc. and is waiting for it to become available and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"> <li>• Waiting for drug chart, computer, notes, fax, colleague to become available</li> </ul>	<ul style="list-style-type: none"> <li>• Looking for something.</li> <li>• Waiting on the phone to talk to GP (WHAT History taking; WITH Dr; HOW phone)</li> <li>• Waiting for fax to go through</li> </ul>

*In transit*

The process of changing location while physically moving. It starts when the pharmacist starts walking and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Walking from pharmacy to ward</li><li>• From ward to ward</li><li>• Pharmacy to pharmacy (main to satellite)</li><li>• Ward to pharmacy</li><li>• Lifts and stairs</li></ul>	<ul style="list-style-type: none"><li>• Looking for something</li><li>• Walking within bay/room</li><li>• Walking within a defined area (dispensary, or nurses' station)</li></ul>

*Social activities/private*

The process of doing something that isn't work-related. It starts when the pharmacist stops doing work-related tasks and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Tea breaks</li><li>• Lunch breaks</li><li>• Bathroom visits</li></ul>	<ul style="list-style-type: none"><li>• Medication discussion</li><li>• Communication</li><li>• Meetings</li></ul>

*Meetings*

The process of coming together for a formal discussion. It starts when the pharmacist attends a meeting and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Staff meetings</li><li>• Educational meetings including teaching nurses and other professional</li></ul>	<ul style="list-style-type: none"><li>• Ward rounds</li><li>• Social activities</li><li>• Supervising a student</li></ul>

**Break**

1- The process of waiting for pharmacist to finish a task with a patient for whom we don't have consent to observe.

2- When a task cannot be observed fully in order to respect the privacy of a patient.

3- When the observer is engaged in conversation.

## Other

### *Work management*

The process of gathering things/getting ready/organising the work. It starts when the pharmacist is organising their work and ends when the next task is observable.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Printing patient lists</li><li>• Getting portable devices ready</li><li>• All administrative tasks not related to clinical tasks e.g. financial planning</li></ul>	<ul style="list-style-type: none"><li>• Review</li><li>• Looking for something</li><li>• Communication</li></ul>

### *Other*

The process of doing something not defined above.

<b>Includes</b>	<b>Excludes</b>
<ul style="list-style-type: none"><li>• Incident reporting</li><li>• Intervention report</li><li>• Data collection</li><li>• Getting someone to fluff patient's pillow</li></ul>	<ul style="list-style-type: none"><li>• All activities defined above.</li><li>• Teaching/supervision (not a specific task but should be recorded as, for example, Review with Pharmacist).</li></ul>



## **APPENDIX II**

### **Pre-ePrescribing implementation interview topic guide**

- What is your background and current position?
- What is your experience of ePrescribing?
- Which medication related activity takes longest now? do you have a sense of what proportion of your time you devote to this activity
- Which medication related activity do you think you should devote the most time to? Why? How could you change your workflow to allow that?
- If you could design the ePrescribing system, what one functionality would you want to include? Why?
- Which medication related activity do you think will be most affected by ePrescribing – why and how?

### **Post - ePrescribing implementation interview topic guide**

- What is your background and current position?
- What is your experience of ePrescribing?
- How long have you been using ePrescribing?
- Which medication related activity takes longest now? Do you have a sense of what proportion of your time you devote to this activity?
- Which medication related activity do you think you should devote the most time to? Why? How could you change your workflow to allow that?
- Does the ePrescribing system have the functionality you wanted included? If so which is it? If not, what one functionality would you have wanted included? Why?
- Which medication related activity do you think has been most affected by ePrescribing – why and how?