

Appendix 4: The clinical pharmacy care typology and its development

Hospital clinical pharmacists, and those who research said practice, were forwarded an online survey of 85 activities from ENDPAPER-Q Part 1. Respondents were asked to decide whether a Band 6/7 hospital pharmacist working in acute medicine would undertake each activity; either yes (regularly or rarely) or no (never). Specifically, they were asked to consider a pharmacist whose only postgraduate qualification was a clinical diploma. This ensured the differentiator for 'traditional' and 'practitioner' work was at the boundary of those pharmacists who met the ENDPAPER study inclusion criteria and those who did not.

Activities chosen were 'parent' questions from each section of the questionnaire. For some sections thought particularly contentious, parent questions were further divided. To give an example, the question 'Would the pharmacist obtain history information?' was divided into 10 questions, one for each type of history information e.g. history of presenting complaint and drug history. Of these, it was anticipated that the former would be defined as 'practitioner' and the latter 'traditional', meaning one parent question would have been too broad to capture this variation.

Over 7 days, 70 responses were received. Activities which achieved >50% 'yes' votes were defined 'traditional', and those with >50% 'no' votes defined practitioner. A question about prescribing discharge medicines divided opinion, receiving =50%. For this activity 'practitioner' was chosen, given that the hypothetical pharmacist respondents were asked to consider was *not* a prescriber. Whilst respondents were not explicitly told this, they were told the pharmacist to be considered had 'just completed their clinical diploma'. If a hospital pharmacist pursues an independent prescriber qualification, this is done after a clinical diploma. The complete Clinical Pharmacy Care Typology is presented overleaf in Table 1, with 85 activities defined as either traditional or practitioner.

Table 1: Clinical Pharmacy Care Typology

Section (number of activity questions / 85, section weighting)	%T?	T/P?
1. History – obtain information (10, 1)		
History of presenting complaint	15.7	P
Medical history	18.6	P
Surgical history	4.3	P
Mental health history	5.7	P
Family history	5.7	P
Recreational drug use	78.6	T
Alcohol history	60.0	T
Smoking history	74.3	T
Social / functional history	27.1	P
Drug history	98.6	T
2. History – review information (10, 1)		
History of presenting complaint	71.4	T
Medical history	78.6	T
Surgical history	62.9	T
Mental health history	60.0	T
Family history	48.6	P
Recreational drug use	82.9	T
Alcohol history	84.3	T
Smoking history	91.4	T
Social / functional history	68.6	T
Drug history	100.0	T

Section (number of activity questions / 85, section weighting)	%T?	T/P?
3. Vital signs, clinical examinations and investigations tests and procedures to <i>inform</i> a patient's diagnosis (9, 1.11)		
Take vital signs e.g. blood pressure	2.9	P
Review vital signs e.g. blood pressure	84.3	T
Perform clinical examinations e.g. cardiovascular examination	1.4	P
Review findings of any clinical examinations e.g. cardiovascular examination	70.0	T
Order/request investigations e.g. urea and electrolytes	22.9	P
Review results of investigations e.g. urea and electrolytes	90.0	T
Order/request tests or procedures e.g. urinalysis	5.0	P
Perform tests or procedures e.g. urinalysis	0.0	P
Review results of tests or procedures e.g. urinalysis	66.4	T
4. Diagnosis and patient management (4, 2.5)		
Diagnose a patient?	0.0	P
Produce a patient's clinical management plan?	8.6	P
Be responsible for enacting a patient's clinical management plan?	21.4	P
Produce a patient's pharmaceutical care plan?	94.3	T
5. Treatment (9, 1.11)		
Prescribe medicines for inpatient treatment	28.6	P
De-prescribe (stop) medicines	55.7	T
Clinically check / screen / validate prescriptions	98.6	T
Dispense medicines (prepare medicines for the patient, incl. any pre-packed/labelled medicines)	87.1	T
Accuracy check dispensed medicines	95.7	T
Administer medicines	2.9	P
Proactively advise another healthcare professional about the medicines used to treat a patient	100.0	T
Reactively advise another healthcare professional about the medicines used to treat a patient	100.0	T
Perform any procedures e.g. administer infusion fluids or apply Plaster of Paris to a fracture	0.0	P

Section (number of activity questions / 85, section weighting)	%T?	T/P?
6. Vital signs, clinical examinations and investigations tests and procedures to <i>monitor</i> a patient's response to medicine treatment (9, 1.11)		
Take vital signs e.g. blood pressure	2.9	P
Review vital signs e.g. blood pressure	95.7	T
Perform clinical examinations e.g. cardiovascular examination	2.9	P
Review the findings of any clinical examinations e.g. cardiovascular examination	81.4	T
Order/request investigations e.g. urea and electrolytes	25.7	P
Review results of investigations e.g. urea and electrolytes	91.4	T
Order/request tests or procedures e.g. urinalysis	12.9	P
Perform tests or procedures e.g. urinalysis (dip a patient's urine)	2.9	P
Review results of tests or procedures e.g. urinalysis	84.3	T
5. Vital signs, clinical examinations and investigations tests and procedures to <i>monitor</i> a patient's response to a procedure used to treat them (9, 1.11)		
Take vital signs e.g. blood pressure	0.0	P
Review vital signs e.g. blood pressure	75.7	T
Perform clinical examinations e.g. cardiovascular examination	4.3	P
Review the findings of any clinical examinations e.g. cardiovascular examination	65.7	T
Order/request investigations e.g. urea and electrolytes	17.1	P
Review results of investigations e.g. urea and electrolytes	75.7	T
Order/request tests or procedures e.g. urinalysis	1.4	P
Perform tests or procedures e.g. urinalysis (dip a patient's urine)	0.0	P
Review results of tests or procedures e.g. urinalysis	60.0	T

Section (number of activity questions / 85, section weighting)	%T?	T/P?
6. Develop / arrange aspects of a patient's discharge plan (9, 1.11)		
Psychosocial assessment	2.9	P
Occupational therapy: functional assessment	4.3	P
Occupational therapy: equipment provision / training	1.4	P
Physiotherapy: falls prevention	5.7	P
Physiotherapy: general	1.4	P
Medication review	97.1	T
Social Work intervention	7.1	P
Provision of Home Oxygen Therapy	12.9	P
Patient's transport out of hospital	2.9	P
7. Enact/perform aspects of a patient's discharge plan (9, 1.11)		
Psychosocial assessment	0.0	P
Occupational therapy: functional assessment	2.9	P
Occupational therapy: equipment provision / training	0.0	P
Physiotherapy: falls prevention	1.4	P
Physiotherapy: general	0.0	P
Medication review	95.7	T
Social Work intervention	4.3	P
Provision of Home Oxygen Therapy	4.3	P
Patient's transport out of hospital	1.4	P

Section (number of activity questions / 85, section weighting)	%T?	T/P?
8. Discharge treatment:		
Prescribe discharge medicines	50.0	P
Clinically check / screen / validate discharge prescriptions	100.0	T
Dispense discharge medicines (prepare medicines for the patient, incl. any pre-packed/labelled medicines)	85.7	T
Accuracy check dispensed discharge medicines	94.3	T
Counsel the patient on how to manage their condition going forward	82.9	T
Counsel the patient on their discharge medicines	97.1	T
Refer a patient to another care provider for further management and/or support with their condition and/or treatment	87.1	T
Total number of T/P:		40/45