APPENDIX 1 (part 1 of 4). Standardized Tool for Evaluation of Hospital Pharmacist Documentation (STEP-D). © 2020 Catherine Sicard and Alexandra Hinse. Reproduced by permission.

Standardized Tool for Evaluation of hospita (STEP-D)	<u>l Pha</u>	<u>rmaci</u>	st Do	<u>ocum</u>	<u>entation</u>		
Section 1: Basic elements						ſ	Score
Type of documentation created? (Name the FMU)							
The reason for the patient's encounter or the clinical context is documented?		Yes (2)		No (0) 🗌		
The disease state(s) to be addressed, rational for documentation reason for the referral is documented	n or	Yes (2)		No (0) 🗌		
The denominator of the total score will be adjus	sted eve	ery time	the rev	viewer		Total or a QI	/
Section 2: Pharmacist's assessment						į	
The subjective information included in the note is relevant to	Compl	otoly	Partiall	· ·	Not relevant	N/A	Score
The subjective information included in the note is relevant to the pharmacist's assessment and plan?	releva		relevar		(0)		
Comment:		ų.					
The subjective information included in the note is sufficient for verifying the pharmacist's assessment and plan?	Compl sufficie		Partiall sufficie		Not sufficient (0)	N/A	
Comment:					, —		
					T		
The objective information included in the note is relevant to the pharmacist's assessment and plan?	Comp releva		Partial releval		Not relevant	N/A	
Comment:							
The objective information included in the note is sufficient for verifying the pharmacist's assessment and plan?	Comp suffici	letely ent (2)	Partial sufficie	-	Not sufficient (0)	N/A	
Comment:							
The pharmacist documented his assessment of the appropriateness of the patient's drug regimen, i.e. the indication, dose and route of administration are in agreement with the patient's health status?	Comp	letely (2)	Parti	ally (1)	Absent (0)	N/A	
Comment:		1.1.1.75	n	. 11 - 743	AL (C)	21/2	
The actual drug-drug, drug-food, drug-laboratory test, and/or drug-disease interaction(s) is (are) documented?	Comp	letely (2)	Parti	ally (1)	Absent (0)	N/A	
Comment:							
The pertinent drug toxicity and adverse events (actual or potential) assessment is (are) documented?	Comp	letely (2)	Parti	ally (1)	Absent (0)	N/A	
Comment:							

APPENDIX 1 (part 2 of 4). Standardized Tool for Evaluation of Hospital Pharmacist Documentation (STEP-D). © 2020 Catherine Sicard and Alexandra Hinse. Reproduced by permission.

he treatment efficacy assessment is documented?	Completely (2)	Partially (1)	Absent (0)	N/A	
Comment:					
The pharmacist's assessment of the information, including the drug therapy problems identified is documented?	Completely (2)	Partially (1)	Absent (0)	N/A	
Comment:					
Rationale for conclusion drawn, action plans, or	Completely (2)	Partially (1)	Absent (0)		
ecommendations made is documented?			. , _		
Comment:					
The denominator of the total score will be adjus	sted every time t	he reviewer s		Fotal r a QI	/
ection 3: Pharmacist's plan and action					
	C(2)	D = ::+: = II : . /4.)	A l + (O)	N1 / A	Score
The decision(s) or recommendation(s) to continue existing	Completely (2)	Partially (1)	Absent (0)	N/A	
herapy or change in drug selection, dosage, duration of					
herapy, and route of administration is (are) documented?					
Comment:					
he decision(s) or recommendation(s) for monitoring drug	Completely (2)	Partially (1)	Absent (0)	N/A	
herapy, including pertinent clinical or laboratory tests with	📙	∐			
heir timing and frequency is (are) clearly stated?			1		
Comment:	•		•		
he expected therapeutic result(s) related to the patient's	Completely (2)	Partially (1)	Absent (0)	N/A	
herapy is (are) documented?					
Comment:			1 —		
s the plan clear and precise enough for another pharmacist to	Yes (2)		No (0)		
ipply it?			(0,		
Comment:					
	Completely (2)	Partially (1)	Absent (0)	N/A	
The pharmacist's action(s) that have been provided or that			Absent (0)		
occurred is (are) documented?					
Comment:					
				Fotal*	/
*The denominator of the total score will be adjus	sted every time t	he reviewer s	elects N/A fo	r a QI	
ection 4: Attributes of the documentation					
					Score
he pharmacist used a standard format (SOAP, FARM, TITRS,	Yes (2)		No (0)		
PAP etc)?					
Comment:					
he content of the documentation is accurate?	Completely (2)	Partially (1)	No (0)		
Comment:	· 		. —	'	
he content of the documentation is relevant?	Completely (2)	Partially (1)	No (0)		
Comment:					
Comment: The content of the documentation is clear?	Completely (2)	Partially (1)	No (0)		

APPENDIX 1 (part 3 of 4). Standardized Tool for Evaluation of Hospital Pharmacist Documentation (STEP-D). © 2020 Catherine Sicard and Alexandra Hinse. Reproduced by permission.

The content of the documentation is concise?	Completely (2) Partially (1) No (0)
Comment:	
The content of the documentation is complete?	Completely (2) Partially (1) No (0)
The content of the decamentation is complete.	
Comment:	
The denominator of the total score will b	Total / e adjusted every time the reviewer selects N/A for a QI
	Total score (Add up all nominators and denominators /
	from section 1 to 4)
	Total score
	Total score

APPENDIX 1 (part 4 of 4). Standardized Tool for Evaluation of Hospital Pharmacist Documentation (STEP-D). © 2020 Catherine Sicard and Alexandra Hinse. Reproduced by permission.

				Score
The medication reconciliation is performed?	Yes (2)	No (0)	N/A	
The indication for each drug taken (or prescribed) is documented?	Yes (2)	No (0)	N/A	
he reason that drug treatment was stopped is documented?	Yes (2)	No (0)	N/A	
he reason that drug treatment was modified is documented?	Yes (2)	No (0)	N/A	
he vaccination status of the patient is documented?	Yes (2)	No (0)		
The use of OTC, homeopathy or natural product by the patient is documented?	Yes (2)	No (0)		
The use of research/investigational drug by the patient is documented?	Yes (2)	No (0)		
he use of medication samples by the patient is documented?	Yes (2) 🗌	No (0)		
f the patient is breastfed, medication(s) taken by the mother is (are) documented?	Yes (2)	No (0)	N/A 🗌	
The recent use of antibiotic by the patient is documented?	Yes (2)	No (0)	N/A	
The recent use of systemic corticosteroid by the patient is documented?	Yes (2)	No (0)	N/A	
The patient's experience with medication, including concerns, complaints,	Yes (2)	No (0)	N/A	
allergies, adverse drug reaction, efficacy, administration issues, and other drug therapy problems is documented?	150 (4)	(4)	.,	
The degree of patient compliance with the prescribed drug is documented?	Yes (2)	No (0)	N/A 🗌	
The method used at home for medication management (dispill, dosett, phone application, nurse, etc) is documented?	Yes (2)	No (0)	N/A 🗌	
The preference for drug formulation (liquid, tablet, chewable, suppository, etc) is documented?	Yes (2)	No (0)	N/A 🗌	
The identification of the individual responsible for drug administration at	Yes (2)	No (0)	N/A	
nome (patient, parent, caregiver, etc)?	. 65 (2)	(6)	.,,	
The drug insurance information is documented?	Yes (2)	No (0)	1	
The name and contact information on the patient's community pharmacy s documented?	Yes (2)	No (0)		
The content of the medication reconciliation is clear?	Yes (2)	No (0)		
The content of the medication reconciliation is complete?	Yes (2)	No (0)		
General comment on the documentation of the medication reconciliation:			Total*	/
*The denominator of the total score will be adjusted every	time the reviev	wer selects N,	/A for a QI	%

APPENDIX 2 (part 1 of 3). User manual for the Standardized Tool for Evaluation of Hospital Pharmacist Documentation (STEP-D). © 2020 Catherine Sicard and Alexandra Hinse. Reproduced by permission.

General procedure for using

The STEP-D is an assessment tool designed for the evaluation of the quality of the pharmaceutical documentation. It contains a total of 43 quality indicators (questions), divided in 5 different sections.

- Section 1 contains basic elements and should be filled for all types of documentation.
- Section 5 contains 20 quality indicators and applies to medication reconciliation only.
- Section 2-4 contains 21 quality indicators and can be filled for every type of documentation other than medication reconciliation. Most questions include the possibility to add a comment related to your choice of answer. Comments are strongly encouraged since they give explanation and permit a more complete feedback to the author of the note.

The STEP-D is built as an online survey using the Microsoft Forms platform. Your evaluation is anonymous, no personal information is collected during the evaluation. Please note that a copy of your filled STEP-D will be sent to the author of the documentation, therefore we strongly suggest not using terms that could allow the evaluated pharmacist to identify the evaluator. The time at which you start and finish the evaluation is collected in order to estimate the mean time required to fill one STEP-D by the evaluating pharmacist.

The goal of the STEP-D is to assess the quality of the documentation written by pharmacists, and not the quality of the pharmaceutical act or decision. It is important to keep this distinction in mind when answering the questions, your clinical judgement or knowledge on a specific patient case should not influence the evaluation of your peer's documentation.

The questions in the STEP-D are answered by either a dichotomous choice (yes/no), or a nominal choice of answer (complete, partial or absent), with a weighted score applied accordingly. Some questions will also offer a *non applicable* (N/A) choice. When selecting the N/A choice, the item will not be included in the calculation of the global score.

This user guide was created to help the evaluators fill the STEP-D. We included detailed explanation on some items and provided examples when deemed pertinent. Any questions or uncertainties about the completion of the STEP-D may be further discussed during the focus group that will be organized once all PRC members have completed their evaluations.

We sincerely thank you for devoting time to improving the quality of pharmaceutical act of pediatric hospital pharmacists.

— The STEP-D team

SECTION 0. Information

Start time. Please use 24 hours clock

Note identification number. Please use name of the PDF file

Note FMU. Choose which applies

SECTION 1. Basic elements

Quality indicator 4. The reason for the patient's encounter or the clinical context is documented?

Did the pharmacist include information on the reason for admission or the clinical situation of the patient at the time of documentation? Often refers to the "one liner" used to describe the patient.

Quality indicator 5. The disease state(s) to be addressed, rationale for documentation or reason for the referral is documented? Is the reason for documenting clear? Can the evaluator easily determine the purpose of the documentation?

SECTION 2. Pharmacist's assessment

Quality indicator 6. The subjective information included in the note is relevant to the pharmacist's assessment and plan?

The subjective elements refer to what is perceived by the patient only. Usually associated with symptoms. Pain and nausea are examples of subjective data.

Is the subjective information included in the documentation appropriately selected (i.e. the author did not simply transcribe the complete interview he/she had with the patient)?

Is the subjective information directly related to the patient's drug therapy or health problem? Is it easy to understand why the author decided to include this information to his documentation? "N/A" would refer to situations where no subjective information is required for the pharmacist's assessment or analysis. As an example, in most cases, subjective information is not needed when evaluating the anti-Xa serum level for a patient on low molecular weight heparin (LMWH). On the other hand, if suspecting therapy failure, subjective information could be relevant (pain, shortness of breath, etc) when analysing the anti-Xa serum level.

APPENDIX 2 (part 2 of 3). User manual for the Standardized Tool for Evaluation of Hospital Pharmacist Documentation (STEP-D). © 2020 Catherine Sicard and Alexandra Hinse. Reproduced by permission.

Quality indicator 8. The subjective information included in the note is sufficient for verifying the pharmacist's assessment and plan?

The subjective elements refer to what is perceived by the patient only. Usually associated with symptoms. Pain and nausea are examples of subjective data.

Sufficient refers to the quantity of information included in the documentation. Has the evaluator enough subjective information to appreciate and understand the pharmaceutical evaluation of the author?

For example, if a pharmacist suggests modifying a medication dosing based on poor tolerance, he/she should specify the nature and quantity of the adverse drug reaction the patient is experiencing. Mentioning only general terms, such as "patient did not tolerate medication" could be determined as not sufficient for the reader to understand the decision taken by the pharmacist. "N/A" would refer to situations where no subjective information is required for a specific assessment. See quality indicator 6 for an example.

Quality indicator 10. The objective information included in the note is relevant to the pharmacist's assessment and plan?

The objective elements refer to measurable data or findings perceived by the examiner. Usually associated with signs. Vital signs, laboratory data, imaging results are examples of objective data.

Is the objective information included in the documentation appropriately selected (i.e. the author did not simply transcribe the complete list of laboratory results available, imaging results, etc)?

Is the objective information directly related to the patient's drug therapy or health problem? Is it easy to understand why the author decided to include this information to his documentation?

Although considered exceptional, the evaluator could select "N/A" in situations where no objective information is required to appreciate the pharmacist's assessment or analysis.

Quality indicator 12. The objective information included in the note is sufficient for verifying the pharmacist's assessment and plan?

The objective elements refer to measurable data or findings perceived by the examiner. Usually associated with signs. Vital signs, laboratory data, imaging results are examples of objective data.

Sufficient refers to the quantity of information included in the documentation. Has the evaluator enough objective information to appreciate and understand the pharmaceutical evaluation of the author?

For example, if a pharmacist suggests IV to PO step-down of an antibiotic given for pneumonia and only reports the temperature as a vital sign, it should be considered insufficient. In addition to the temperature, the respiration rate and the oxygen saturation/need for oxygen supplementation of the patient should minimally be taken into consideration when evaluating if the clinical status of the patient indicates readiness to PO step-down.

Although considered exceptional, the evaluator could select "N/A" in situations where no objective information is needed for a specific assessment.

Quality indicator 14. The pharmacist documented his assessment of the appropriateness of the patient's drug regimen, i.e. the indication, dose and route of administration are in agreement with the patient's health status?

Did the pharmacist document the information about the clinical status/information on the patient that were used to assess the appropriateness of his therapy?

For example, when documenting an analysis on vancomycin serum level, the pharmacist should document that he/she assessed the dose and serum level according to the bacteria (presumed or confirmed) and site of infection the vancomycin is used for.

Another example would be that the pharmacist documented on the appropriate indication to use a PPI therapy in a patient with GERD, and not only physiological regurgitation or discomfort with feeds.

A last example would be that the pharmacist documented that a patient with atypical pneumonia could not tolerate PO azithromycin, therefore the IV route is appropriate to use.

"N/A" would refer to situations where the rationale for documenting does not imply an assessment for appropriateness of therapy, for example documentation related to discharge planning.

Quality indicator 16. The actual drug-drug, drug-food, drug-laboratory test, and/or drug-disease interaction(s) is (are) documented?

"N/A" would refer to situations where an interaction analysis does not apply to the purpose of the documentation and not necessarily if there is no interaction. For example, when a pharmacist documents his/her recommendation on the adjustment of medication dose according to weight change, it is not expected that he/she mentions the presence or absence of an interaction.

Some examples of drug interactions:

- Drug-drug: Tobramycine and furosemide.
- Drug-food: Warfarin and green vegetables or statins and grapefruit.
- Drug-laboratory: Allergy testing in a patient on chronic antihistamine.
- Drug-disease: Medication contraindicated with some disease, for example, myasthenia gravis or G6PD deficiency.

APPENDIX 2 (part 3 of 3). User manual for the Standardized Tool for Evaluation of Hospital Pharmacist Documentation (STEP-D). © 2020 Catherine Sicard and Alexandra Hinse. Reproduced by permission.

Quality indicator 18. The pertinent drug toxicity and adverse events (actual or potential) assessment is (are) documented?

Example of a potential drug toxicity could be the risk of kidney injury with the initiation of an aminoglycoside.

"N/A" would refer to situations where adverse drug reactions or toxicities are not expected to be relevant to the context of documentation, for example when documenting the actions taken or remaining when planning discharge.

Quality indicator 20. The treatment efficacy assessment is documented?

"N/A" would refer to the situation where the evaluator judges that the context of the note does not apply to the effectiveness assessment, for example when documenting the actions taken or remaining when planning discharge.

Quality indicator 22. The pharmacist's assessment of the information, including the drug therapy problems identified is documented? Are the medp2nsidered exceptional, "N/A" would refer to situations where the context of the note does not imply assessment of information. For example, when documenting the approval of a Special Access Program medication in the patient's chart.

SECTION 3. Pharmacist's plan and action

Quality indicator 26. The decision(s) or recommendation(s) to continue existing therapy or change in drug selection, dosage, duration of therapy, and route of administration is (are) documented?

Did the pharmacist specifically document his/her plan or recommendation on each medication relevant to the purpose of the documentation.

For example, when documenting pharmacokinetic analysis of an aminoglycoside, the pharmacist specified the action to be taken in regards to this specification medication. It would not be relevant for the pharmacist to document the plan on all the other medication the patient is taking. If the pharmacist used the mention "continue the same" or "continue idem", this is considered as documented. But the absence of any information in this regard would qualify as "absent".

"N/A" would refer to situations where the purpose of the documentation does not apply to modification or continuation of therapy, for example when documenting discharge planning.

Quality indicator 28. The decision(s) or recommendation(s) for monitoring drug therapy, including pertinent clinical or laboratory tests with their timing and frequency is (are) clearly stated?

Did the pharmacist document on the specific objective and/or subjective information to be followed according to the patient's drug therapy or health status, or the absence of need for follow up?

"N/A" would refer to situations where the purpose of the documentation does not apply to monitoring of therapy. For example, when a pharmacist documents his/her recommendation on the adjustment of medication dose according to weight change, it is often not expected that he/she documents any monitoring.

Quality indicator 32. Is the plan clear and precise enough for another pharmacist to apply it?

Did the pharmacist include enough information to allow another colleague to take over and use this note for ongoing patient care, within the limits of the documentation purpose.

For example, a pharmacist mentioning "follow up tolerance in 24 hours" would not be considered as a clear nor precise enough plan for a peer to apply.

Quality indicator 34. The pharmacist's action(s) that have been provided or that occurred is (are) documented?

Did the pharmacist document any task he/she did related to the patient's case? For example, the pharmacist documented that he/she met with the family, contacted another health care professional, or added labs to the ordering system?

SECTION 4. Attributes of the documentation

Quality indicator 36: The pharmacist used a standard format (SOAP, FARM, TITRS, DAP, etc)?

A non standard format would refer to a note with no logical structure, for example, only a paragraph.

SECTION 5. Medication history (when applicable)

This section contains 20 quality indicators that must be answered with yes, no or N/A.

N/A refers to situations where the information is not expected to be documented according to the available information. For example, if the patient is not taking any medication, no information on the indication can be documented, or if every medications are continued upon admission, there is no need to indicate reason for stopping/modifying. When selecting "N/A", the evaluator is strongly encouraged to document the reason that led him/her to select this option in the comments section.

APPENDIX 3 (part 1 of 2). Questions for semistructured individual interviews.

Introduction

You are invited to participate in this research project because you are a pharmacist working at the Montreal Children's Hospital (MCH) who has been part of the peer review program (PRP) and/or has received feedback on the quality of your clinical notes through the recently implemented PRP at the MCH. We are interested in exploring your views on barriers and facilitators to the implementation and sustainability of the Pharmacist Documentation Quality PRP at the MCH.

We have provided a series of questions that you are invited to answer to the best of your knowledge, to help us explore your positive and negative views of the PRP, as well as to identify problematic elements of the PRP that you feel need to be improved. Some of the questions may seem similar to those asked in the surveys, but we want to explore the ideas and opinions raised in the surveys in greater depth.

Questions for all pharmacists:

- 1. What is your position on the peer review process (PRP) as a method of assessing the quality of MCH pharmacists' documentation?
 - 1.1 What would be a preferred method of assessment?
- 2. What do you think a peer consists of?
 - 2.1. Do you feel that all your peers are qualified to assess the quality of your documentation? Please elaborate.
- 3. Before the PPR began, what were your personal concerns about the project?
 - 3.1. How did your concerns change once the PRP began?
- 4. How would you describe your experience with the PRP after trying it out?
 - 4.1. What do you think were the strengths of the PRP?
 - 4.2. What were the weaknesses of the PRP?
 - 4.3. Of the previously listed items, what changes should be made in the future?
- 5. What do you think about the importance of anonymity in this program, given that the evaluations are blind?
- 6. What do you think is the appropriateness of using a standardized tool in general to conduct peer review of clinical documentation quality?
 - 6.1. What other way of evaluating documentation do you think would be preferable?
- 7. Regarding the specific tool used in this study (the STEP-D), what is your general opinion of _____ as an evaluator:
 - 7.1. The choice of items
 - 7.2. The number of items included
 - 7.3. The structure of the tool
 - 7.4. Clarity of criteria
- 8. Regarding feedback on the assessments, how did you feel about receiving it in the form of an email report?
 - 8.1. What would you have thought about receiving your feedback in person instead of by email, either from a member of the research team or a member of the review committee?
- 9. In your experience with feedback, what elements should be included in a feedback report? Please name all relevant elements.
- 10. How would you describe the impact of the peer review process on your documentation?

APPENDIX 3 (part 2 of 2). Questions for semistructured individual interviews.

Additional questions for all pharmacist evaluator (i.e., PRC members):

- 11. Now that both cycles have been completed, what are your thoughts on STEP-D specifically, as a tool for assessing the quality of documentation as an evaluator?
- 12. What were your initial concerns with STEP-D?
- 13. Do you still have concerns that persist after using it for the second cycle? If so, what are they?
- 14. What would make it easier to use?
- 16. What did you think of the workload for evaluation in each cycle?
- 17. Would you like to repeat the experiment?

APPENDIX 4. Questions for focus group with the peer review committee.

Introduction

We invited you to participate in this research project because you are a pharmacist working at the Montreal Children's Hospital (MCH) on the Peer Review Committee (PRC). We want to explore your vision of the barriers and facilitators to the implementation and sustainability of the peer review program (PRP) for the quality of pharmacist documentation at the MCH.

We have provided a series of questions that you are all invited to answer to the best of your knowledge, to help us identify problem areas in the PRP that you feel need to be improved. Some of the questions may seem similar to those asked in the surveys, but we want to expand on the ideas and opinions discussed in the surveys.

Questions for Focus Group Involving Pharmacists on Peer Review Committee:

- 1. How would you describe your experience as a pharmacist reviewer in the peer-review program (PRP)?
- 2. What do you see as the strengths of the PRP?
- 3. What are the weaknesses of the PRP?
 - 3.1 What aspects should be modified or improved in the future?
- 4. Based on the analysis of the surveys, it appears that the ______stage (distributing grades, evaluating grades, or receiving feedback) was problematic.
 - 4.1. What were the barriers encountered?
 - 4.2. How did you manage the situation?
 - 4.3. What changes would you like to see in the second cycle?
- 5. What factors do you think influenced the time it took to complete the documentation assessment (grade quality, interruptions, grade length)?
 - 5.1. In addition to the factor of time required for documentation evaluation, what other factors determine whether a workload is reasonable or not?