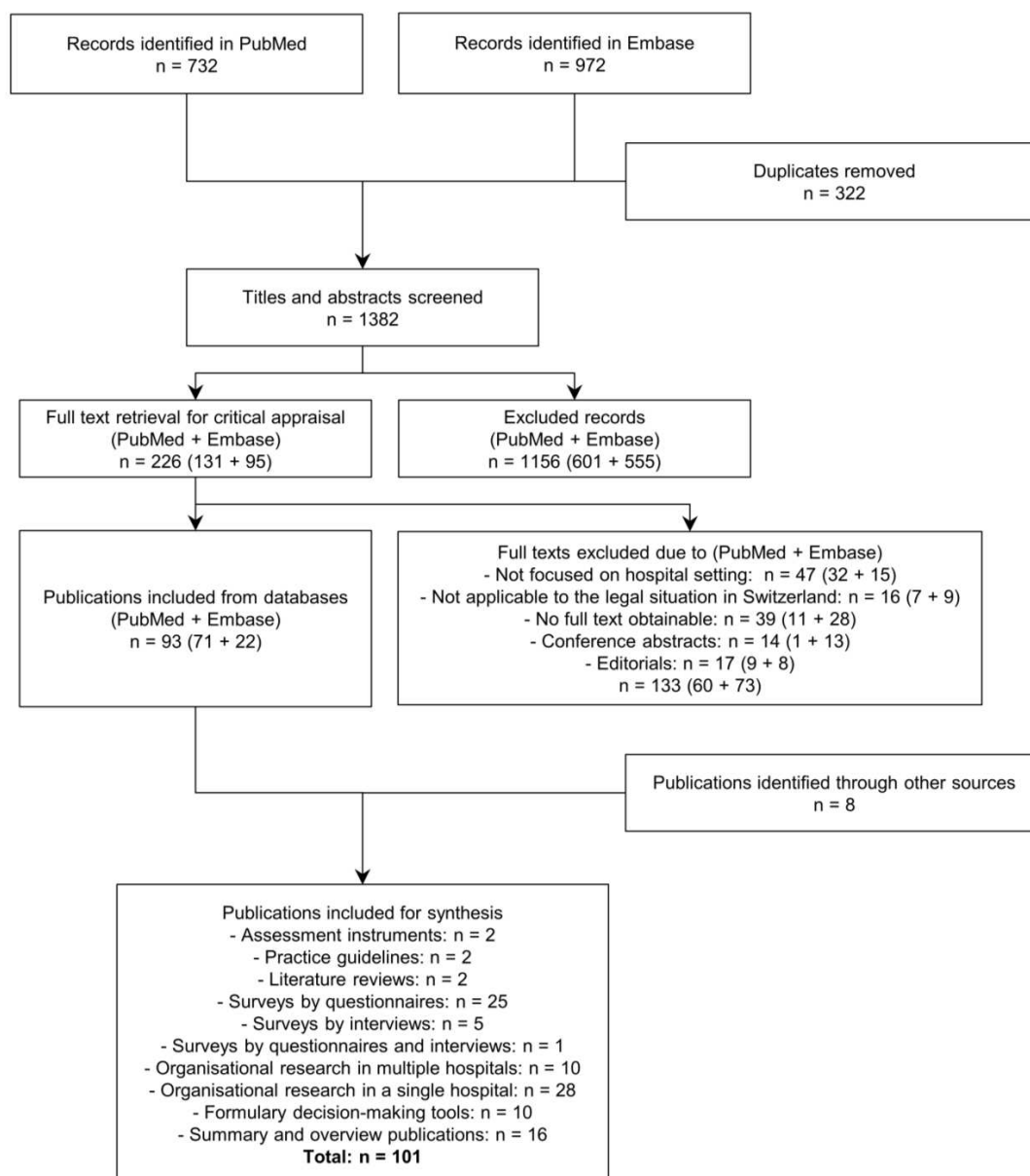## Appendix B1: Results of the literature review

The results of the literature review are shown in Figure B. A total of 101 publications met our inclusion criteria and were retrieved for the development of the assessment tool.

Figure B1. Flow diagram of the literature review

Appendix B2: Search strategies

We defined a search strategy in PubMed for the main topics (PTC and formulary system), using Medical Subject Heading (MeSH) Major Topics and synonyms in the title or abstract and combined this search string with search strings for the subtopics guidelines, assessment, activities and challenges. Search strings were developed based on applicable MeSH terms (if available). Additionally, the titles and abstracts were searched for the MeSH terms or subcategories, synonyms, or additional key words. Finally, the defined limitations regarding publication date, language and study type were applied. Afterwards, we translated the search strategy from PubMed into a search strategy for Embase. We identified the Emtree terms which matched the chosen MeSH terms best. The process at arriving at the final search string can be traced in Table B1 for PubMed and in Table B2 for Embase.

Table B1. Search strategy for PubMed

Main topic	MeSH terms	Title/Abstract
PTC, Formulary system	"Pharmacy and Therapeutics Committee"[MAJR] "Formularies, Hospital as Topic"[MAJR]	"Pharmacy and Therapeutics Committee*"[TIAB] "Pharmacy & Therapeutics Committee*"[TIAB] "P and T Committee*"[TIAB] "P&T Committee*"[TIAB] "Drug and Therapeutics Committee*"[TIAB] "Drug Committee*"[TIAB] "Medicine and therapeutics committee*"[TIAB] "Formulary committee*"[TIAB] "Hospital Formular*"[TIAB] "Drug Formular*"[TIAB]
	"Pharmacy and Therapeutics Committee"[MAJR] OR "Formularies, Hospital as Topic"[MAJR] OR "Pharmacy and Therapeutics Committee*"[TIAB] OR "Pharmacy & Therapeutics Committee*"[TIAB] OR "P and T Committee*"[TIAB] OR "P&T Committee*"[TIAB] OR "Drug and Therapeutics Committee*"[TIAB] OR "Drug Committee*"[TIAB] OR "Medicine and therapeutics committee*"[TIAB] OR "Formulary committee*"[TIAB] OR "Hospital Formular*"[TIAB] OR "Drug Formular*"[TIAB]	

Subtopic	MeSH terms	Title/Abstract
Guidelines	"Guidelines as Topic"[MH]	"Guid*"[TIAB]
	("Pharmacy and Therapeutics Committee"[MAJR] OR "Formularies, Hospital as Topic"[MAJR] OR "Pharmacy and Therapeutics Committee*"[TIAB] OR "Pharmacy & Therapeutics Committee*"[TIAB] OR "P and T Committee*"[TIAB] OR "P&T Committee*"[TIAB] OR "Drug and Therapeutics Committee*"[TIAB] OR "Drug Committee*"[TIAB] OR "Medicine and therapeutics committee*"[TIAB] OR "Formulary committee*"[TIAB] OR "Hospital Formular*"[TIAB] OR "Drug Formular*"[TIAB]) AND ("Guidelines as Topic"[MH] OR "Guid*"[TIAB])	
Assessment	"Health Care Evaluation Mechanisms"[MH]	"Assess*"[TIAB] "Characteri*"[TIAB] "Survey*"[TIAB] "Questionnaire*"[TIAB] "Checklist*"[TIAB] "Classif*"[TIAB] "Polic*"[TIAB] "Framework*"[TIAB]
	("Pharmacy and Therapeutics Committee"[MAJR] OR "Formularies, Hospital as Topic"[MAJR] OR "Pharmacy and Therapeutics Committee*"[TIAB] OR "Pharmacy & Therapeutics Committee*"[TIAB] OR "P and T Committee*"[TIAB] OR "P&T Committee*"[TIAB] OR "Drug and Therapeutics Committee*"[TIAB] OR "Drug Committee*"[TIAB] OR "Medicine and therapeutics committee*"[TIAB] OR "Formulary committee*"[TIAB] OR "Hospital Formular*"[TIAB] OR "Drug Formular*"[TIAB]) AND ("Health Care Evaluation Mechanisms"[MH] OR "Assess*"[TIAB] OR "Characteri*"[TIAB] OR "Survey*"[TIAB] OR "Questionnaire*"[TIAB] OR "Checklist*"[TIAB] OR "Classif*"[TIAB] OR "Polic*"[TIAB] OR "Framework*"[TIAB])	

Activities	"Pharmacy Service, Hospital"[MH] "Decision Making"[MH] "Decision Making, Organizational"[MH]	"Hospital Pharac*"[TIAB] "Decision Making"[TIAB] "Activit*"[TIAB] "Role*"[TIAB]
	("Pharmacy and Therapeutics Committee"[MAJR] OR "Formularies, Hospital as Topic"[MAJR] OR "Pharmacy and Therapeutics Committee*"[TIAB] OR "Pharmacy & Therapeutics Committee*"[TIAB] OR "P and T Committee*"[TIAB] OR "P&T Committee*"[TIAB] OR "Drug and Therapeutics Committee*"[TIAB] OR "Drug Committee*"[TIAB] OR "Medicine and therapeutics committee*"[TIAB] OR "Formulary committee*"[TIAB] OR "Hospital Formular*"[TIAB] OR "Drug Formular*"[TIAB]) AND ("Pharmacy Service, Hospital"[MH] OR "Decision Making"[MH] OR "Decision Making, organizational"[MH] OR "Hospital Pharmac*"[TIAB] OR "Decision Making"[TIAB] OR "Activit*"[TIAB] OR "Role*"[TIAB])		
Challenges	NA	"Challenge*"[TIAB] "Problem*"[TIAB] "Issue*"[TIAB]
	("Pharmacy and Therapeutics Committee"[MAJR] OR "Formularies, Hospital as Topic"[MAJR] OR "Pharmacy and Therapeutics Committee*"[TIAB] OR "Pharmacy & Therapeutics Committee*"[TIAB] OR "P and T Committee*"[TIAB] OR "P&T Committee*"[TIAB] OR "Drug and Therapeutics Committee*"[TIAB] OR "Drug Committee*"[TIAB] OR "Medicine and therapeutics committee*"[TIAB] OR "Formulary committee*"[TIAB] OR "Hospital Formular*"[TIAB] OR "Drug Formular*"[TIAB]) AND ("Challenge*"[TIAB] OR "Problem*"[TIAB] OR "Issue*"[TIAB])		
Limitations	**Final search string**	
Publication date: Since 01 Jan 2000 Languages: English and German Publication type: No clinical studies, except observational studies No articles with nonhuman species	("Pharmacy and Therapeutics Committee"[MAJR] OR "Formularies, Hospital as Topic"[MAJR] OR "Pharmacy and Therapeutics Committee*"[TIAB] OR "Pharmacy & Therapeutics Committee*"[TIAB] OR "P and T Committee*"[TIAB] OR "P&T Committee*"[TIAB] OR "Drug and Therapeutics Committee*"[TIAB] OR "Drug Committee*"[TIAB] OR "Medicine and therapeutics committee*"[TIAB] OR "Formulary committee*"[TIAB] OR "Hospital Formular*"[TIAB] OR "Drug Formular*"[TIAB]) AND ("Guidelines as Topic"[MH] OR "Guid*"[TIAB] OR "Health Care Evaluation Mechanisms"[MH] OR "Assess*"[TIAB] OR "Characteri*"[TIAB] OR "Survey*"[TIAB] OR "Questionnaire*"[TIAB] OR "Checklist*"[TIAB] OR "Classif*"[TIAB] OR "Polic*"[TIAB] OR "Framework*"[TIAB] OR "Pharmacy Service, Hospital"[MH] OR "Decision Making"[MH] OR "Decision Making, organizational"[MH] OR "Hospital Pharmac*"[TIAB] OR "Decision Making"[TIAB] OR "Activit*"[TIAB] OR "Role*"[TIAB] OR "Challenge*"[TIAB] OR "Problem*"[TIAB] OR "Issue*"[TIAB]) AND ("2000"[DP] : "2020"[DP]) AND ("English"[LA] OR "German"[LA]) NOT (("Clinical study"[PT] NOT "Observational Study"[PT]) OR "Clinical Trial"[PT]) NOT ("Animals"[MH] NOT "Humans"[MH])	

Key PubMed

1. " ":   Phrase search

2. [MAJR]:   MeSH (subject heading) as major topic of the article

3. Asterisk (*):   Truncation

4. [TIAB]:   Terms in either the title or abstract fields

5. [MH]:   MeSH (subject heading)

6. [DP]:   Publication date search field

7. [LA]:   Language search field

8. [PT]:   Publication type search field

Table B2. Search Strategy for Embase

Main topic	Emtree	Title/Abstract
PTC, Formulary system	'pharmacy and therapeutics committee'/mj 'frug formulary'/mj	'pharmacy and therapeutics committee*':ti,ab 'pharmacy & therapeutics committee*':ti,ab 'p and t committee*':ti,ab 'p&t committee*':ti,ab 'drug and therapeutics committee*':ti,ab 'drug committee*':ti,ab 'medicine and therapeutics committee*':ti,ab 'formulary committee*':ti,ab 'hospital formular*':ti,ab 'drug formular*':ti,ab
	'pharmacy and therapeutics committee'/mj OR 'drug formulary'/mj OR 'pharmacy and therapeutics committee*':ti,ab OR 'pharmacy & therapeutics committee*':ti,ab OR 'p and t committee*':ti,ab OR 'p&t committee*':ti,ab OR 'drug and therapeutics committee*':ti,ab OR 'drug committee*':ti,ab OR 'medicine and therapeutics committee*':ti,ab OR 'formulary committee*':ti,ab OR 'hospital formular*':ti,ab OR 'drug formular*':ti,ab	

Subtopic	Emtree	Title/Abstract
Guidelines	'practice guideline'/exp	'guid*':ti,ab
	('pharmacy and therapeutics committee'/mj OR 'drug formulary'/mj OR 'pharmacy and therapeutics committee*':ti,ab OR 'pharmacy & therapeutics committee*':ti,ab OR 'p and t committee*':ti,ab OR 'p&t committee*':ti,ab OR 'drug and therapeutics committee*':ti,ab OR 'drug committee*':ti,ab OR 'medicine and therapeutics committee*':ti,ab OR 'formulary committee*':ti,ab OR 'hospital formular*':ti,ab OR 'drug formular*':ti,ab) AND ('practice guideline'/exp OR 'guid*':ti,ab)	
Assessment	'assessment'/exp 'outcome assessment'/exp	'assess*':ti,ab 'characteri*':ti,ab 'survey*':ti,ab 'questionnaire*':ti,ab 'checklist*':ti,ab 'classif*':ti,ab 'polic*':ti,ab 'framework*':ti,ab
	('pharmacy and therapeutics committee'/mj OR 'drug formulary'/mj OR 'pharmacy and therapeutics committee*':ti,ab OR 'pharmacy & therapeutics committee*':ti,ab OR 'p and t committee*':ti,ab OR 'p&t committee*':ti,ab OR 'drug and therapeutics committee*':ti,ab OR 'drug committee*':ti,ab OR 'medicine and therapeutics committee*':ti,ab OR 'formulary committee*':ti,ab OR 'hospital formular*':ti,ab OR 'drug formular*':ti,ab) AND ('assessment'/exp OR 'outcome assessment'/exp OR 'assess*':ti,ab OR 'characteri*':ti,ab OR 'survey*':ti,ab OR 'questionnaire*':ti,ab OR 'checklist*':ti,ab OR 'classif*':ti,ab OR 'polic*':ti,ab OR 'framework*':ti,ab)	
Activities	'hospital pharmacy'/exp 'decision making'/exp	'hospital pharmac*':ti,ab 'decision making':ti,ab 'activit*':ti,ab 'role*':ti,ab
	('pharmacy and therapeutics committee'/mj OR 'drug formulary'/mj OR 'pharmacy and therapeutics committee*':ti,ab 'pharmacy & therapeutics committee*':ti,ab OR 'p and t committee*':ti,ab OR 'p&t committee*':ti,ab OR 'drug and therapeutics committee*':ti,ab OR 'drug committee*':ti,ab OR 'medicine and therapeutics committee*':ti,ab OR 'formulary committee*':ti,ab OR 'hospital formular*':ti,ab OR 'drug formular*':ti,ab) AND ('hospital pharmacy'/exp OR 'decision making'/exp OR OR 'hospital pharmac*':ti,ab OR 'decision making':ti,ab OR 'activit*':ti,ab OR 'role*':ti,ab)	

Challenges	'problem identification'/exp	'challenge*':ti,ab 'problem*':ti,ab 'issue*':ti,ab
	('pharmacy and therapeutics committee'/mj OR 'drug formulary'/mj OR 'pharmacy and therapeutics committee*':ti,ab OR 'pharmacy & therapeutics committee*':ti,ab OR 'p and t committee*':ti,ab OR 'p&t committee*':ti,ab OR 'drug and therapeutics committee*':ti,ab OR 'drug committee*':ti,ab OR 'medicine and therapeutics committee*':ti,ab OR 'formulary committee*':ti,ab OR 'hospital formular*':ti,ab OR 'drug formular*':ti,ab) AND ('problem identification'/exp OR 'challenge*':ti,ab OR 'problem*':ti,ab OR 'issue*':ti,ab)	

Limitations	**Final search string**
Publication date: Since 01 Jan 2000 Languages: English and German Study type: No in vivo studies, no in vitro studies, no controlled studies, no randomized controlled trials, no clinical audit, clinical protocols, no models, no clinical trials No articles with nonhuman species	('pharmacy and therapeutics committee'/mj OR 'drug formulary'/mj OR 'pharmacy and therapeutics committee*':ti,ab OR 'pharmacy & therapeutics committee*':ti,ab OR 'p and t committee*':ti,ab OR 'p&t committee*':ti,ab OR 'drug and therapeutics committee*':ti,ab OR 'drug committee*':ti,ab OR 'medicine and therapeutics committee*':ti,ab OR 'formulary committee*':ti,ab OR 'hospital formular*':ti,ab OR 'drug formular*':ti,ab) AND ('practice guideline'/exp OR 'Guid*':ti,ab OR 'assessment'/exp OR 'outcome assessment'/exp OR 'assess*':ti,ab OR 'characteri*':ti,ab OR 'survey*':ti,ab OR 'questionnaire*':ti,ab OR 'checklist*':ti,ab OR 'classif*':ti,ab OR 'polic*':ti,ab OR 'framework*':ti,ab OR 'hospital pharmacy'/exp OR 'decision making'/exp OR 'hospital pharmac*':ti,ab OR 'decision making':ti,ab OR 'activit*':ti,ab OR 'role*':ti,ab OR 'problem identification'/exp OR 'challenge*':ti,ab OR 'problem*':ti,ab OR 'issue*':ti,ab) AND (english:la OR german:la) AND [1-1-2000]/sd NOT ('in vivo study'/exp OR 'in vitro study'/exp OR 'controlled study'/exp OR 'randomized controlled trial'/exp OR 'clinical audit'/exp OR 'clinical protocol'/exp OR 'model'/exp OR 'nonhuman'/exp)

Key Embase

1. ' ': Phrase search

2. /mj: Emtree subject heading as major topic of the article

3. Asterisk (*): Truncation

4. :ti,ab: Terms in either the title or abstract fields

5. /exp: Emtree subject heading (indexing term) exploded

6. /la: Language search field

7. /sd: Entry date search field