PCNE Classification

PCNE scheme for Drug related problems-2

(revised V2.04)

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The Problems

Primary Domain	Code	Code SPSS	Problem
Lack of Drug Patient does not get the amount of drug he/she requires	P1.1 P1.2 P1.3 P1.4 P1.5	1 2 3 4 5	No drug prescribed but clear indication Drug not taken (only partially) Drug not taken at all Drug dose too low or dosage regime not frequent enough Drug level too low for other reasons
Too much drug Patient gets more than the amount of drug he/she requires	P2.1 P2.2 P2.3	6 7 8	Drug dose too high or dosage regime too frequent Too much drug taken Drug level too high for other reasons
Unnecessary drug Patient gets a drug he/she does not require	P3.1 P3.2	9 10	Duplication of therapeutic group or active ingredient No clear indication for drug use
Wrong drug Patient gets or is going to get a wrong medicine for his/her disease and/or condition	P4.1 P4.2 P4.3	11 12 13	Potential interaction Contra-indication for drug (incl. Pregnancy/breast feeding) Inappropriate drug prescribed (not best choice for indication and/or patient)
Treatment duration or timing Patient gets drugs for a wrong therapy-duration or at wrong time	P5.1 P5.2 P5.3	14 15 16	Duration of treatment too short Duration of treatment too long Incorrect timing
Adverse Events Patient suffers from an adverse drug event	P6.1	17	Side effect suffered
Patient related problems	P7.1 P7.2 P7.3 P7.4 P7.5 P7.6	18 19 20 21 22 23	Patient is unable to use drug/form properly Patient asks for inappropriate drug (OTC) Therapy failure for unknown reason (escape code) Patient dissatisfied with therapy despite taking correctly Unclear complaints. Further clarification necessary Insufficient awareness of health and diseases (possibly leading to future problems)

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The Causes

Category	Code	Code SPSS	Causes
Drug/Dose selection The cause of the DRP is related to the selection of the drug and/or dosage schedule	C1.1 C1.2 C1.3 C1.4 C1.5 C1.6 C1.7 C1.8 C1.9	1 2 3 4 5 6 7 8 9	Inappropriate drug selection Inappropriate dosage selection More cost-effective drug available Pharmacokinetic problems Synergistic drug required Preventive drug required Dosage adjustment required due to organ impairment Deterioration/improvement of disease state New symptom presented
Drug use process The cause of the DRP can be related to the way the patient uses the drug, in spite of proper dosage instructions (on the label)	C2.1 C2.2 C2.3 C2.4 C2.5 C2.6 C2.7 C2.8 C2.9	10 11 12 13 14 15 16 17 18	Drug not used/ underused because of side-effects Drug not used/ underused because of costs Drug not used/ underused because of health beliefs Drug misused Drug used to suppress avoidable side-effect No therapeutic drug monitoring Inappropriate timing of administration and/or dosing intervals Patient unable to use drug/form properly Patient forgets to use/take drug
Information The cause of the DRP can be related to a lack of information or misinterpretation	C3.1 C3.2 C3.3 C3.4	19 20 21 22	Instructions for use/taking not known Patient not familiar with reason for drug treatment Patient has difficulties reading/understanding Patient Information Form/Leaflet Patient unable to understand language
Patient/Psychological The cause of the DRP can be related to the personality of the patient.	C4.1 C4.2 C4.3 C4.4 C4.5 C4.6	23 24 25 26 27 28	Health beliefs not in line with treatment Patient does not want to bother doctor/GP Patient does not want to change drugs Patient has concerns about drugs Patient does not want to adapt life-style Burden of therapy
Logistics The cause of the DRP can be related to the logistics of the prescribing or dispensing mechanism	C5.1 C5.2 C5.3	29 30 31	Prescribed drug not available Prescribing error (only in case of slip of the pen) Dispensing error (wrong drug or dose dispensed)
Misc.	C6.1 C6.2 C6.3	32 33 34	Other reason No obvious reason Manifest side effect, no other cause

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The Interventions

Category	Code	Code SPSS	Interventions
No intervention	I0.0	1	No Intervention
At presciber level	I1.1	2	Prescriber informed only
	I1.2	3	Prescriber asked for information
	I1.3	4	Intervention proposed by pharmacy, approved by Prescriber
	I1.4	5	Intervention proposed by pharmacy, *not* approved by Prescriber
	I1.5	6	Intervention proposed to prescriber, outcome unknown
At patient (or relative) level	I2.1	7	Patient medication counselling
	I2.2	8	Written information provided only
	I2.3	9	Patient referred to prescriber
	I2.4	10	Spoken to family member/caregiver
At drug level	I3.1	11	Drug changed to ….
	I3.2	12	Dosage changed to ….
Other intervention	I4.1	13	Other intervention (Description)
	I4.2	14	Side effect reported to authorities

Changes between V1.0 and V 2.0

General:
- Word 'medicine' replaced by 'drug' (can be reversed if desirable)
- Suggested option to include 'Patient asks for OTC drug' and 'drug sold' does not have a link with a drug related problem, and therefore will not be included. If the patient asks for the wrong OTC drug, then P7.2 is available.

Problem section
- Domain 'Too much drug' added'
- Items 'Drug dose too low' and 'dosage regime not frequent enough' merged into new item: 'Drug dose too low or dosage regime not frequent enough' and moved to appropriate domain.
- Items 'Drug dose too high' and 'dosage regime too frequent merged into new item: 'Drug dose too high or dosage regime too frequent' and moved to appropriate domain.
- Item 'Drug not taken (only partially)' added.
- Domain 'Dosage' changed into 'Treatment Duration'.
- Item 'Patient is unable to use drug/form properly' moved to domain 'Patient related problems'.
- Item 'Manifest Interaction' removed (is cause) and 'Drug level too low' and 'Drug level too high' added to the appropriate domains. Item 'Potential interaction' is still in problem section. The manifest interaction is a cause.
- Item 'Patient asks for inappropriate drug (OTC)' added to domain Patient related problems
- 'Side effect suffered' combined, not really relevant if it is allergic or not.

Causes section
- Item 'Drug overused' removed (= drug misused)
- 'Prescribing error (slip of the pen)'changed into 'Prescribing error (only in case of slip of the pen)'. Other prescribing errors are covered in first domain.
- 'Manifest side effect, no other cause' added to Misc. domain (a side effect can be an independent cause for an undesirable reaction to a drug)

Intervention section
- Item 'Practical instruction to patient' removed (= Patient medication counselling)
- Item 'Written information provided only' added
- Item 'Intervention proposed to prescriber, outcome unknown' added
- Item: Side effect reported to authorities' added