

# DEVELOPMENT OF PHARMACIST MEDICATION REVIEW IN PAEDIATRIC DISCHARGE PROCESS



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# Objectives

Paediatric patients need follow-up during discharge as they are at higher risk of medication errors and adverse drug events owing to complex medical care. This is a vulnerable period which requires vigilance from healthcare professionals.

The expanded role of clinical pharmacists like active participation in clinical activities can help to secure patients' management.

**⇒**To assess pharmacist medication review at paediatric discharge

Single centre prospective pilot study from February to October

admission

Patient at discharge process

Patient with chronic disease

Discharged prescription different from

Children already included in therapeutic

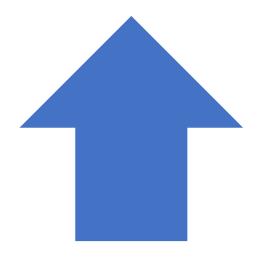
patient education for diabetes, asthma or



- ✓ Drugs pharmacokinetics in children
- ✓ Off-labelled prescriptions
- ✓ Inappropriate dosage form
- ✓ Transition from hospital to home



- ✓ Reviewing discharge prescriptions
- ✓ Reconciliation
- √ Pharmacist counselling
- ✓ Assessment of Occupational Practices



#### Methods

- Time to pick up outpatient treatment after discharge
- Comparison of patients' understanding and their need of further information before and after pharmacist medication review
- 4 Patients' satisfaction (anonymous feedback questionnaire)

Pharmacist medication review = discharge counselling

follow-up telephone encounters

J0

J3-J7

chronic inflammatory bowel disease

• Patient who didn't speak French or English

Assessment of pharmacist medication review:

- **1** Pharmacist interventions (PIs):
  - ✓ Type of PIs using « Société Française de Pharmacie Clinique » (SFPC) French notation [1]
  - ✓ Frequency

2018 (8 months)

Inclusion criteria

Exclusion criteria

- ✓ Clinical impact using Hatoum's scale graduated from 0 (no clinical impact) to 3 (vital clinical impact) [2]
- ✓ Paediatrician acceptance rates

complète. Si nécessaire, administrez la moitié de la dose d'un côté de la bouche, puis l'autre moité de la dose d'un côté de la bouche, puis l'autre moité de l'autre côté.

2. Tout en tenant le tube en plastique, brisez la bague d'inviolabilité et sortez la seringue

de BUCCOLAM\*.

3. Retirez le capuchon rouge de la seringue.

4. Protégez la tête de l'enfant en la reposant sur un objet souple.

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5. Pincez doucement la joue de l'enfant la seringue entre la genche inférieure et la joue (dans la cavité buccale).

6. Pincez doucement la joue de l'enfant en la seringue entre la genche inférieure et la joue (dans la cavité buccale).

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7. Effets indésirables potentiels principaux et prévention

6. Faire plusieurs repas légers et éviter les aliments frits, épicés et gras.

7. A surveiller afin d'éviter le risque de chute.

Contactez votre neuropédiatre.

☑ information sheet about medicines

Therapeutic drug

Adverse effects

monitoring

☑ personalised therapeutic plan
(> 3 prescribed drugs)

After interview, n

(%)

2 (4%)

3 (6%)

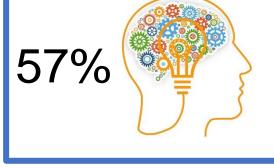
adverse effects (98%)

## Results

### Patients characteristics:

49 patients
Sex Ratio: 0.88

Median age (y) (range): 6.0 (0 - 17)
51% with 2 - 4 prescribed drugs
29% off-labelled prescriptions



14%

0%

✓ 49 patients (60% of patients' discharges)
 ✓ 25 pharmacist interventions (PIs)
 100% of PIs accepted by Paediatrician

Pharmacist interventions (PIs)

Problems	Interventions (n)	Clinical impact (n)
Wrong dosage	Substitution (n=5)	Very Significant (n=4)
	Dose optimisation (n=4)	Significant (n=6)
	Frequency optimisation (n=1)	
Wrong	Substitution (n=7)	Very Significant (n=1)
administration	Optimisation (n=4)	Significant (n=10)
Absence of	Therapeutic drug monitoring	Significant (n=2)
monitoring	(n=2)	
Drug-disease	Stop (n=2)	Very Significant (n=1)
or drug-drug		Significant (n=1)
interaction		

2

References:

78% of paediatric patients could get their treatment without delay after discharge.

# Comparison of patients' understanding and their need of further information before and after pharmacist medication review:

Before interview, n

(%)

17 (35%)

22 (45%)

	Understanding		
	Number and drug name	18 (37%)	37 (76%)
	Indication	34 (69%)	40 (82%)
	Dose/frequency	8 (16%)	39 (80%)
	Treatment duration	14 (29%)	37 (76%)
	Further information		
	needed		
	Preparation/Administration	34 (69%)	3 (6%)
	Indication	7 (14%)	0 (0%)
	Treatment duration	15 (31%)	1 (2%)

4 Patients' satisfaction (n=43) Treatment understanding (100%) 100% 80% Clarity of Drug 60% administration (95%) explanation 40% (100%)20% 0% Provided Provision of medication (100%) document (93%)Identifying Identifying and appropriate person management of

#### Discussion - Conclusion

to contact (93%)

- ✓ This pilot study was **focused on few diseases**, but inclusion criteria will be increased. Undertaking the research at a single hospital may limit the generalisation of the results. Time spent to this pilot study represented **50%** of hospital pharmacist's activities. Time to prepare for and conduct each encounter and follow-up was not recorded.
- ✓ Pharmacists can provide a valuable service in patients' management during children discharge process by detecting prescription errors, optimizing administration and counselling patients. Facilitate the discharge process satisfy patients and can help to provide continuity of care.
- ✓ Development of interprofessional pharmacist-paediatrician-nurse team provided various skills to take care of paediatric patients. There are opportunities for community and hospital pharmacists to realise follow-up interviews according to the place of picking up medications. Efforts to assist patients with adherence might improve the benefits of prescribed medication. This program is a part of ongoing improvement of professional practices relating to better patients' management and quality of life.
- [1] Allenet B, Bedouch P, Rose F-X, Escofier L, Roubille R, Charpiat B, et al. Validation of an instrument for the documentation of clinical pharmacists' interventions. Pharm World Sci. 2006 Aug 1;28(4):181–8
- [2] Hatoum HT, Hutchinson RA, Witte KW, Newby GP. Evaluation of the contribution of clinical pharmacists: inpatient care and cost reduction. Drug Intell Clin Pharm. 1988 Mar;22(3):252–9

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