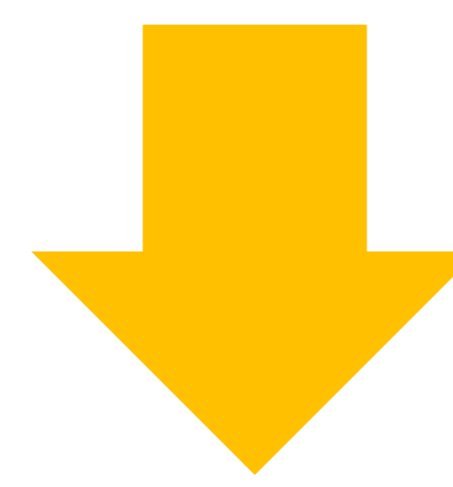


Objectives

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**.

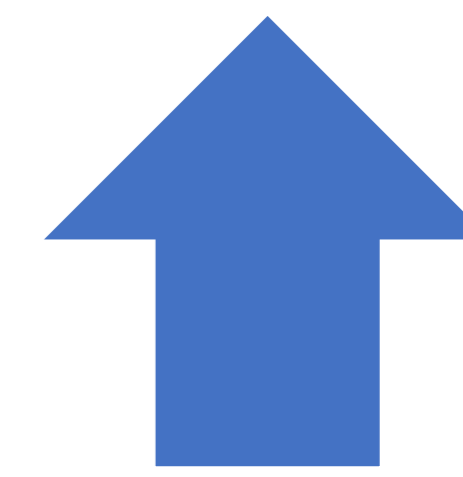
➔ **To assess pharmacist medication review at paediatric discharge**



- ✓ 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

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

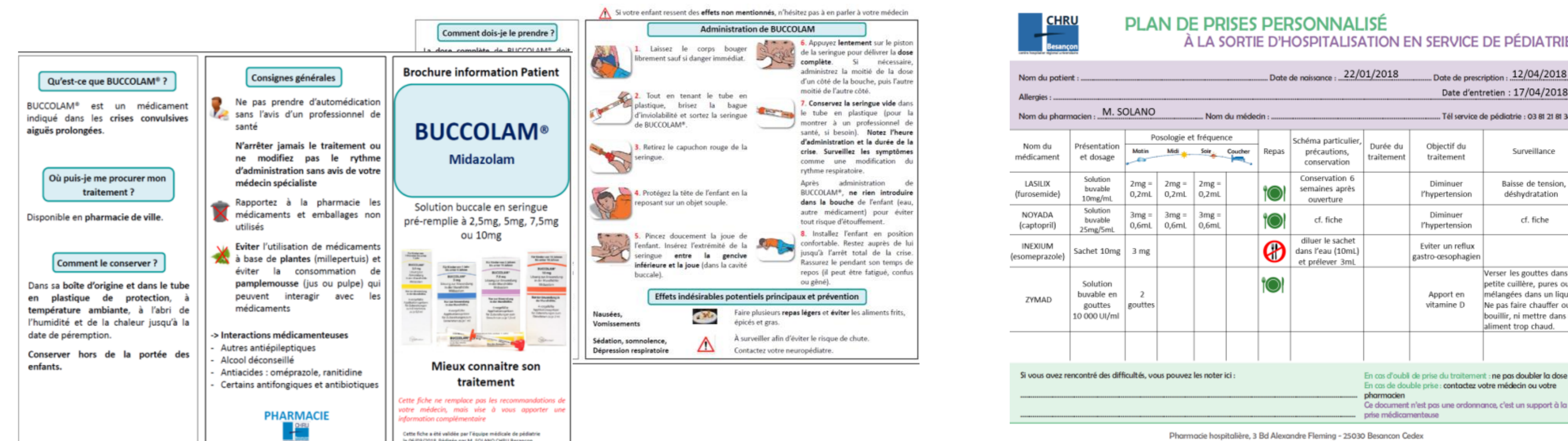
Pharmacist medication review = discharge counselling

follow-up telephone encounters

J0

J3-J7

➔ Work tools were created to help pharmacist during discharge counselling:



☑ information sheet about medicines

☑ personalised therapeutic plan (> 3 prescribed drugs)

Single centre prospective pilot study from February to October 2018 (8 months)

Inclusion criteria

- Patient at discharge process
- Patient with chronic disease
- Discharged prescription different from admission

Exclusion criteria

- Children already included in therapeutic patient education for diabetes, asthma or chronic inflammatory bowel disease
- Patient who didn't speak French or English

➔ **Assessment of pharmacist medication review:**

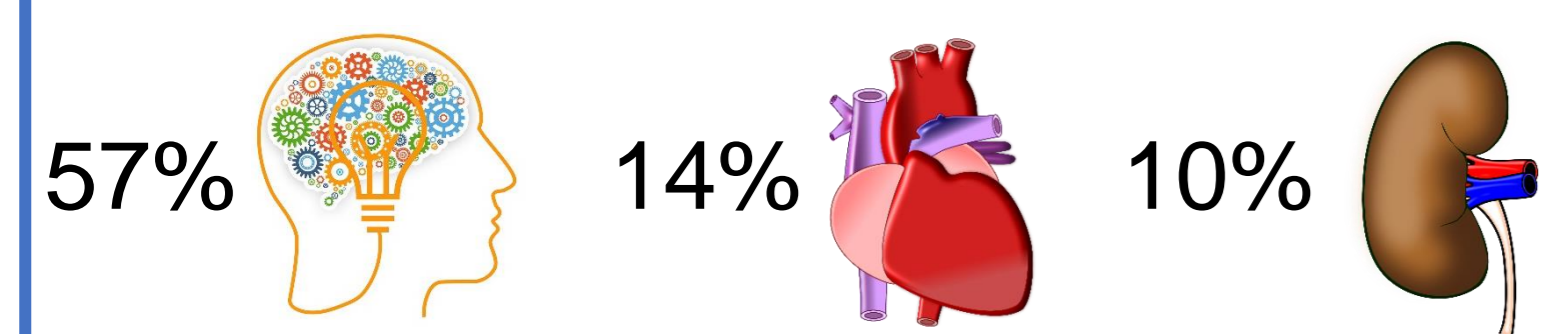
1 Pharmacist interventions (PIs):

- ✓ **Type** of PIs using « Société Française de Pharmacie Clinique » (SFPC) French notation^[1]
- ✓ **Frequency**
- ✓ **Clinical impact** using Hatoum's scale graduated from 0 (no clinical impact) to 3 (vital clinical impact)^[2]
- ✓ **Paediatrician acceptance rates**

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



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

1 Pharmacist interventions (PIs)

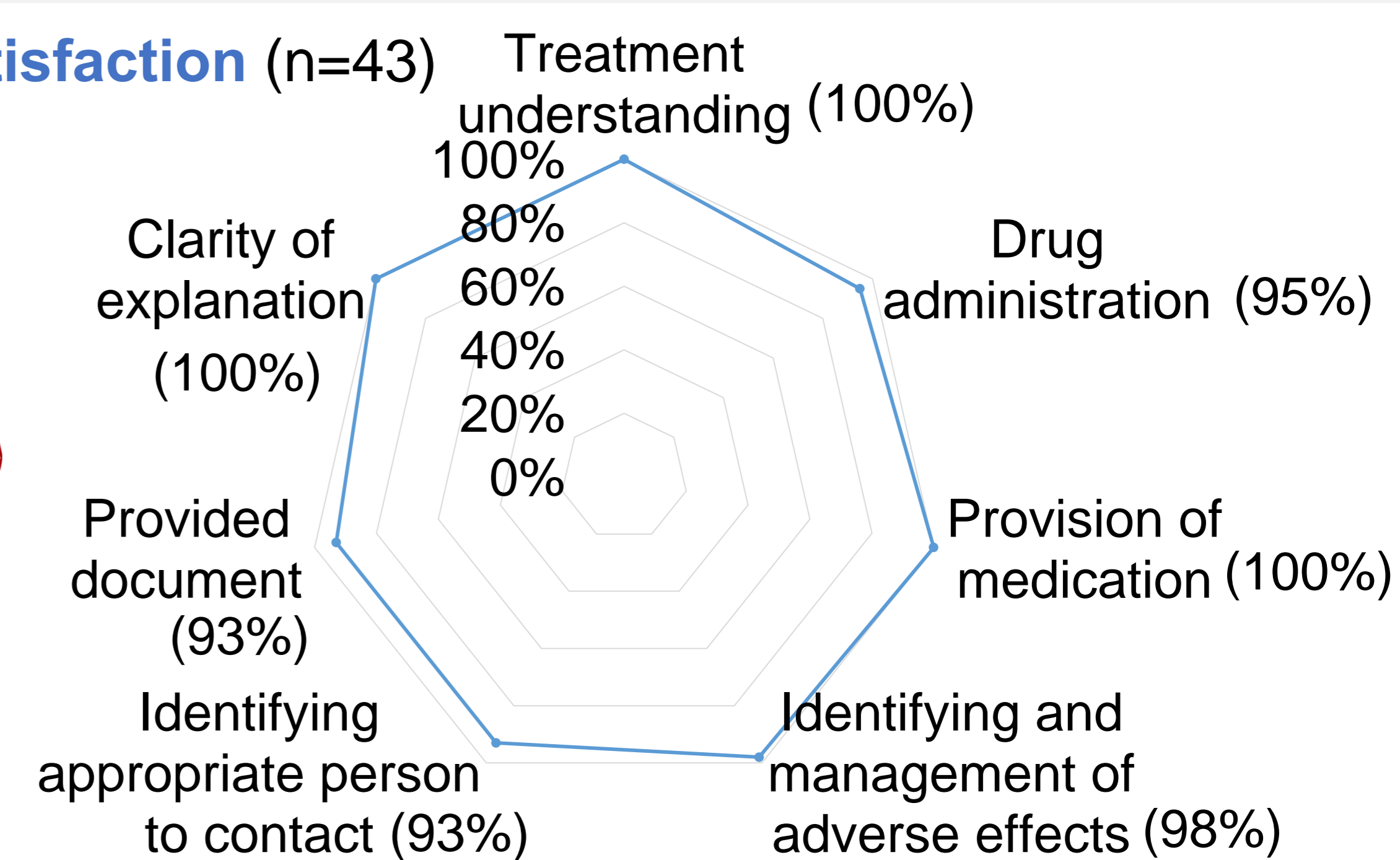
Problems	Interventions (n)	Clinical impact (n)
Wrong dosage	Substitution (n=5)	Very Significant (n=4)
	Dose optimisation (n=4)	Significant (n=6)
	Frequency optimisation (n=1)	
Wrong administration	Substitution (n=7)	Very Significant (n=1)
	Optimisation (n=4)	Significant (n=10)
Absence of monitoring	Therapeutic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

2 **78%** of paediatric patients could get their treatment **without delay** after discharge.

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

	Before interview, n (%)	After interview, n (%)
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%)
Therapeutic drug monitoring	17 (35%)	2 (4%)
Adverse effects	22 (45%)	3 (6%)

4 Patients' satisfaction (n=43)



Discussion - Conclusion

✓ 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**.

References:

- ^[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