

## INTRODUCTION

- In Canada, the Food and Drug Act allows the distribution of drug samples to physicians, dentists and pharmacists.
- Most provincial regulatory authorities do not proscribe their distribution in healthcare settings.
- Drug sample use may bypass the optimal drug-use process in hospitals and retail pharmacies.

## OBJECTIVE

- The objective of this study is to compare the number of drug samples available in outpatient clinics in a teaching hospital in 2007, 2009 and 2012.

## METHODS

- This cross-sectional observational study was conducted in a mother-child University Hospital Centre in Quebec.
- Drug samples were monitored every 6 months by pharmacy staff through unannounced visits.
- A first extensive audit was conducted in 2007 and the total number of units of drug samples in all outpatient clinics in 1-2 week period was counted.
- This audit was repeated in November 2009 and in July 2012.
- The total number of units and doses of drug samples available during our 1-2 week audits were calculated in 2007, 2009 and 2012.
- A ratio of doses of drug samples per patient visit was also calculated to account for potential patient exposure.
- A total of 31 locations were identified in 21 outpatient clinics.

**Table 1.** Profile of drug samples in a mother-child teaching hospital in 2007, 2009 and 2012

Locations (number of locations)	2007		2009		2012	
	Drug samples units (n)	Drug samples doses per patient-visits* (n)	Drug samples units (n)	Drug samples doses per patient-visits* (n)	Drug samples units (n)	Drug samples doses per patient-visits* (n)
Pneumology (1)	564	5.16	484	0.88	189	0.73
Obstetric-gynecology (5)	1157	0.52	308	0.12	239	0.17
Pediatrics (2)	961	1.26	867	0.67	785	0.57
Dermatology (3)	2398	1.49	3525	5.53	3563	6.06
Otolaryngology (1)	6056	0.64	1315.5	0.79	989	0.52
Gastroenterology (1)	251	0.45	480	0.23	249	0.66
Dyalisis (1)	202	1.61	0	0.00	0	0.00
Endocrinology (1)	19	0.94	33	0.04	2	0.08
Adolescent medicine (1)	179	0.64	36	0.06	116	1.02
Emergency (2)	311	0.02	44	0.01	0	0.00
Allergy (1)	200	0.41	0	0.00	245	2.10
Ophthalmology (1)	858	0.09	212	0.26	268	0.05
Urology (1)	78	0.25	23	0.03	46	0.09
Neurology (1)	170	0.12	33	0.03	30	0.04
Dentistry (2)	329	0.12	63	0.03	268	0.17
Development (1)	152	0.17	273	0.45	0	0.00
Diabetes (1)	214	0.13	205	0.35	0	0.00
Orthopedics (1)	71	0.01	28	0.01	0	0.00
Daycare (1)	33	0.02	19	0.02	0	0.00
Neonatology (2)	4	0.03	0	0.00	0	0.00
Renal transplant (1)	14	0.02	131	0.71	0	0.00
<b>Total (31)</b>	<b>14221</b>	<b>NC</b>	<b>8080</b>	<b>NC</b>	<b>6989</b>	<b>NC</b>

\* The drug samples doses per patient-visits ratio was calculated for outpatient clinics only. NC = The total ratio was not calculated.

## RESULTS

- We counted the number of units and of doses of drug samples, respectively, in 2007, 2009 and 2012.
- The number of doses increased in 2012 mostly because of a higher proportion of topical drugs in dermatology.
- The ratio of dose of drug samples per patient-visit stayed stable.

**Table 2.** Ratio of dose of drug samples per patient-visit

Variables	2007	2009	2012
Units	14221	8080	6989
Doses	78955	75487	91000
Ratio of doses	0.40	0.38	0.41

## DISCUSSION / CONCLUSION

- In 2012, only 19% of doses documented were listed on the official hospital drug formulary and 4% of doses were expired.
- The availability of drug samples in our outpatient clinics has stayed stable for five years.
- We believe drug samples do not contribute to better patient care and should only be dispensed by retail pharmacy through a structured approach with a documentation of doses dispensed in the patient record.