

Stop taking off the blister packs of solid form drugs in prison

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Introduction

The primary packaging of a pharmaceutical product and the information listed behind each unit dose are essential for a safe identification and traceability to the patient. However, the last medical units of the CHUV where nurses remove the **Solid Form Drugs (SFD)** from their blisters when they prepare in advance the week container were the 5 medical units of Vaud prisons.

Aims

- 1) Description of the medication of inmates
- 2) Classification of the SFD blisters
- 3) Study of the major barriers for a change of preparation, in order to stop the removal of blisters

Setting and Method

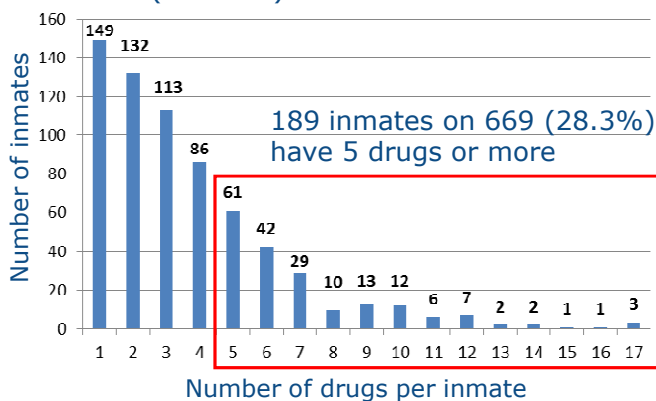
From February to June 2015 in 5 medical units of prisons managed by the SMPP of the CHUV:

- 1) Analysis of data from billing database
- 2) Assessment of essential data for safe identification of single doses of SFD. Classification of them using traffic lights colours based on information on blisters.
- 3) Identification of major barriers to change the way of preparation by reviewing literature, interviewing nurses and direct observation.

Implementation of the revised procedure

Results

- 1) 669 inmates on 872 had at least 1 drug (76.7%)
The average number of drugs per inmate was 3.7 ± 2.8 (max: 17)



Out of 2459 prescriptions, 978 were psychotropic drugs (39.8%).

The top 10 represent 1020 prescriptions (41.5%). 7 of top-10 most prescribed drugs were psychotropic drugs.

| | | | | | |
|---|-------------|-----|----|--------------|----|
| 1 | Paracetamol | 194 | 6 | Mirtazapine | 71 |
| 2 | Quetiapine | 173 | 7 | Esomeprazole | 70 |
| 3 | Ibuprofen | 124 | 8 | Hydroxyzine | 62 |
| 4 | Zolpidem | 121 | 9 | Clorazepate | 55 |
| 5 | Lorazepam | 97 | 10 | Diazepam | 53 |

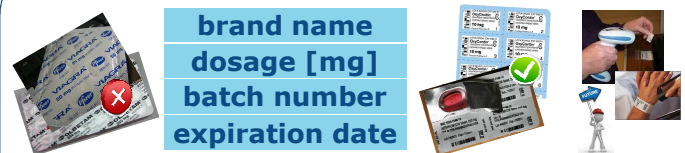
Conclusion

The majority of inmates have a drug treatment in prison, and psychotropic drugs are frequent.

Half of SFD unit dose is identifiable (trade name and dosage) but an effort from manufacturers should better secure the drug supply chain.

The study of the barriers helped to further implement the pilot phase. Since early 2016, none of the 5 prisons medical units are removing the blisters and no incident was reported.

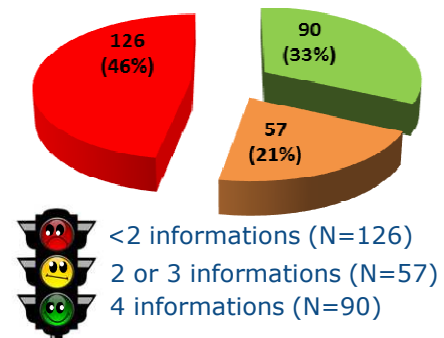
- 2) The 4 data identified as essential:



The SFD unit doses were classified as:

- **red** with <2 data
- **yellow** with 2 or 3 data
- **green** when the blister included 4 data

Number of drugs per category $N_{tot} = 273$ SFD



An infovigilance was sent to each manufacturers

- 3) Potential barriers identified and evaluated

| | |
|---|--|
| Trays' sizes and space in drug's cupboards | Using containers larger than is usual was rarely necessary; space in cupboards was sufficient |
| Preparation time to cut versus remove blisters | The preparation time gradually decreased during the study |
| Risks of self/hetero-aggression with pre-cut blisters | Ingestion or aggression with pre-cut blisters was considered as limited, based on literature and experiences of 2 others prisons: Geneva (CH) & Lyon (F) |
| Drugs packaged in bulk | Proposals to the pharmacy to store some alternatives blistered SFD; blistering expensive bulked drugs; availability of the entire package delivered to inmates |
| Multi-doses liquid medications | |

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