

IMPROVING THE MEDICATION PROCESS IN PSYCHIATRIC HOSPITALS

How automated medical dispensing may help
reduce errors and improve patient safety



When it comes to medication processes, psychiatric hospitals face distinct challenges. In this paper, we zero in on some of these challenges and explore automated dispensing systems as a part of a potential solution, citing the experience of a psychiatric hospital in France.

FOUR CONTRIBUTING FACTORS TO MEDICATION ERRORS IN PSYCHIATRIC HOSPITALS

A 2013 study from a psychiatric hospital in Denmark found errors in almost one-fifth of all medication handlings, and a proportion of these had the potential to harm patients. Most errors were found in the administration stage.¹ Another study found that almost half of medication errors are related to care transition processes.²

WHAT ARE THE INHERENT CHARACTERISTICS OF A PSYCHIATRIC HOSPITAL THAT CREATE CHALLENGES TO MEDICATION PROCESSES?

According to a 2017 report, Medication reconciliation in psychiatric hospitals: some reflections³, four factors contribute to medication errors in psychiatric hospitals:

References:

1. Soerensen AL, Lisby M, Nielsen LP, Poulsen BK, Mainz J. The medication process in a psychiatric hospital: are errors a potential threat to patient safety? Risk Manag Healthc Policy. 2013;6:23-31.

2. Bethishou, L., Lounsbury , O. ., & Prosser, D. (2020). Medication Safety During Transitions of Care: The Importance of Checklists in Preventing Patient Harm. Patient Safety, 2(2), 48–55.

3. Lertxundi, U., Corcóstegui, B., Prieto, M., Gonzalez, U., & Arana, A. Medication reconciliation in psychiatric hospitals: some reflections. Journal of Pharmacy Practice and Research. 2017;47(1);47-50.

4. Frick, U., Frick, H., Langguth, B., Landgrebe, M., Hübner-Liebermann, B., & Hajak, G. The revolving door phenomenon revisited: time to readmission in 17'415 Patients with 37'697 Hospitalisations at a German Psychiatric Hospital. PloS one. 2013;8(10):e75612.



LENGTH OF STAY

Compared to general hospitals, for example, stays for patients in psychiatric hospitals tend to be longer, especially in those facilities meant for medium and long stays. That means that medication discrepancies that occur on admission could simply go unnoticed and continue for a longer time, increasing the likelihood of causing patient harm.



A 'REVOLVING DOOR'

Psychiatric patients are often being transferred back and forth to acute hospitals for treatment of concomitant diseases. They may also need to visit other hospitals as outpatients. Additionally, some patients are hospitalized intermittently. All of this creates the revolving door well known in psychiatry.⁴



THE CHARACTERISTICS OF PSYCHOACTIVE DRUGS

Many medications used in psychiatry, such as antipsychotics and antidepressants, require gradual increases and decreases in dosage. Unnoticed treatment changes (like the patient skipping some dosages) may lead to outcomes that could be mistaken for worsening of the disease, leading to new prescriptions and potentially dangerous outcomes.



VULNERABILITY OF PSYCHIATRIC PATIENTS

Patients with mental health problems have certain characteristics that make them particularly vulnerable to medication errors, such as somatic comorbidity, a high rate of polypharmacy, substance abuse and poor treatment adherence. And severe patients, such as those with acute psychotic decompensation or advanced dementia, are often unable to participate in error detection.

AUTOMATED MEDICATION DISPENSING: HOW EPSM PSYCHIATRIC HOSPITAL REDUCED MEDICATION ERRORS

As medication errors come more into focus, automated drug dispensing systems are increasingly seen as an effective tool for increasing safety across the medication process and enhancing therapy compliance.

Because of the high number of patient transfers and shifting medication types, medication processes were complex and burdensome for nurses, who had the main responsibility for dispensing and administering drugs. EPSM needed the ability to pre-plan and schedule medication dispensing and to trace back prescriptions in the case of transferred patients.

EPSM PSYCHIATRIC HOSPITAL

Located in France
1,500 professionals on staff
23,000 patients served a year
430 beds
Pharmacy staff:
4 pharmacists, 8 pharmacy technicians,
3 students, 3 storekeepers



“PHARMACY TECHNICIANS ARE MORE SATISFIED, WORK IS MORE EFFICIENT, CLEAN AND ORGANIZED AND EVERYONE IS HAPPY, EVEN DURING VERY BUSY PERIODS,”

Elisabeth Zawadski, Head of Pharmacy at EPSM

“THE MAIN WORD IS SAFETY. THE MACHINE IS SAFE AND THERE’S BEEN A DOCUMENTED DECREASE IN ERRORS OF 30%,”

Elisabeth Zawadski, Head of Pharmacy at EPSM

SMOOTHER PROCESSES REDUCE THE LIKELIHOOD OF ERRORS

When drug dispensing was manual, validation was carried out by both nurses and pharmacist. Today, only pharmacists are required to validate prescriptions, and the automated device takes care of many of the validation processes.

“Before automation, we would do every step of the validation, and that meant being aware of any changes like the patients transferring wards,” says Elisabeth. “We had to schedule all medications manually which was very time consuming.”

The software allows prescriptions to be signed and sent off to the dispensing system and prepares individual medication pouches. Now workload is decreased in the pharmacy and the lower stress levels reduce the likelihood of medication errors in the pharmacy.

The automated system gives the pharmacy the ability to pre-plan for patients needing advanced prescriptions and scheduling administration to the exact required time. This also contributed to increased medication safety.

REDUCING HUMAN ERROR IN THE WARDS

The PROUD automated medication dispensing system relieves nurses of the responsibility of dispensing medication, allowing them to focus on timing administrations, which is critical for the medications’ efficacy.

Now nurses save 30 minutes per day in the care units. As a result, human error is avoided, safety is increased, and nurses can focus on patient care.

A RANGE OF REMEDIES IN THE QUEST TO REDUCE ERRORS

According to the aforementioned studies, psychiatric hospitals are exploring a wide range of remedies to the relatively high rate of medication errors, from improving nursing culture to educating patients and their families on medication adherence.⁵ These remedies can likely contribute to a safer medication process along with an automated medication dispensing solution, such as the PROUD System from Baxter.

References:

5. Lertxundi U, Corcóstegui B, Prieto M, Gonzalez U, Arana A. Medication reconciliation in psychiatric hospitals: some reflections. Journal of Pharmacy Practice and Research. 2017;47(1):47-50.

MEET THE PROUD SYSTEM

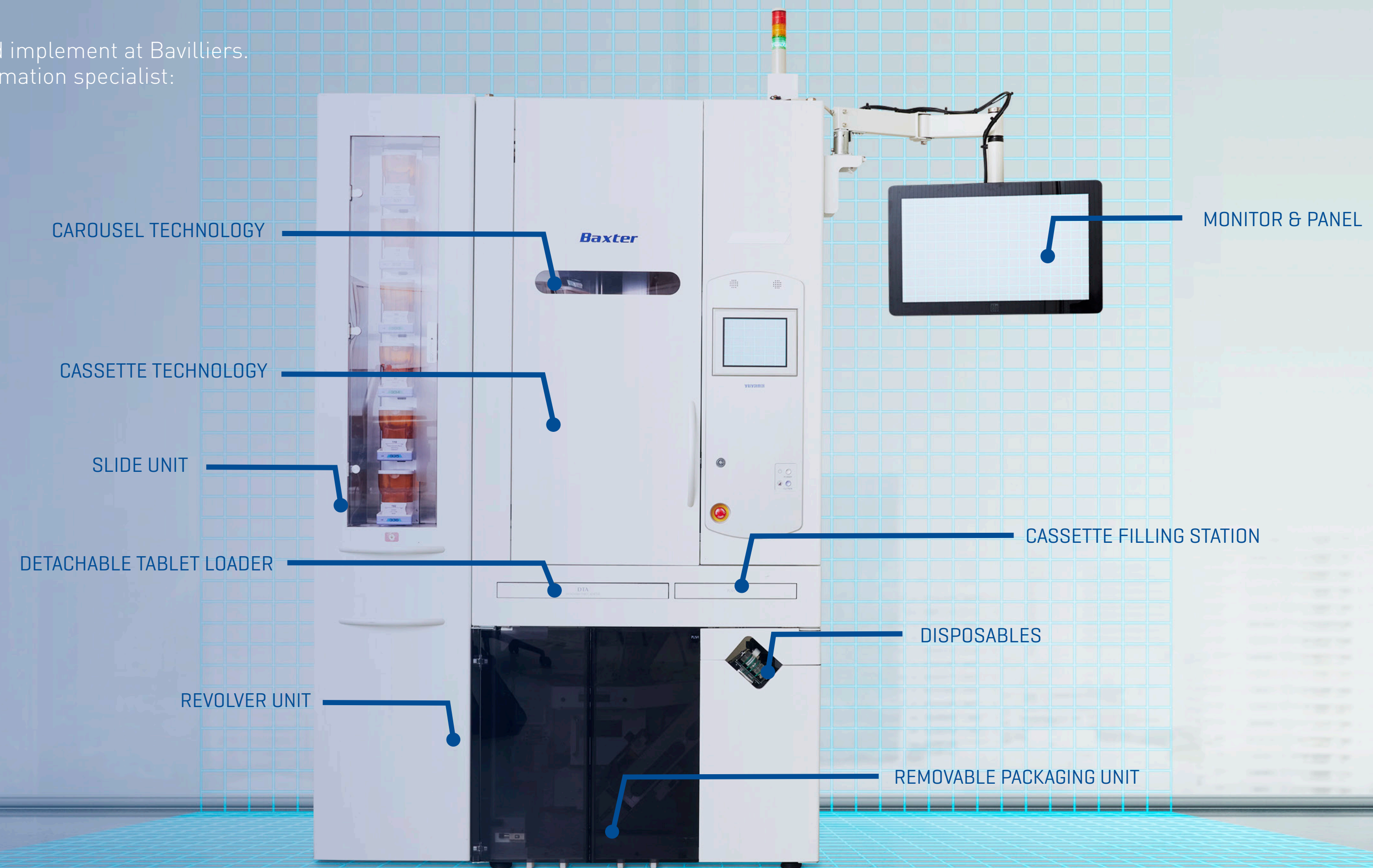
The PROUD System and the full portfolio of solutions we helped implement at Bavilliers.
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