

**Dolnośląskie Centrum Zdrowia Psychicznego sp. z o.o. –
(Wrocław Psychiatric Hospital), Poland**
www.dczp.wroclaw.pl a 300 bed facility in the center of Wrocław.



The hospital offers three types of clinics

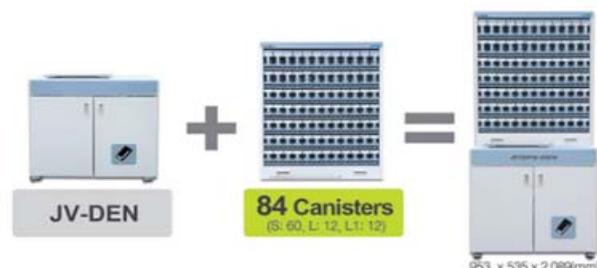
1. Six 24-hour psychiatric clinics: - www.dczp.wroclaw.pl/stacjonarne
2. Three psychiatric day care units: - www.dczp.wroclaw.pl/dzienne ; and
3. Three care units for alcohol and narcotics and other addictions: - www.dczp.wroclaw.pl/wotu

The pharmacy department employs two full time pharmacists and is renowned for its expertise in psychiatric medicine. Two years ago, the hospital with over 443 medications, including 285 oral solids, installed a **JVM DEN pouch packaging machine with 84 canisters plus a STS guide light and a deblister machine.**

Since October 2015, it has been supplying medicines packed in unit doses, as part of an overall pharmacy service, to the six 24-hour psychiatric clinics providing care for people with mental disorders. These 24-hour clinics also provide diagnostic, therapeutic and rehabilitation services.

The implementation of Unit Dose concept has:

1. enhanced patient safety, as the right medication is delivered at the right dose to the right patient for administration at the right time;
2. improved workflow; and
3. significantly increased stock management efficiency, with a reduction of 'expired' stock of medications at each of the six 24-hour psychiatric clinics as well as a reduction of stock holding levels at the six 24-hour psychiatric clinics.



Robotic features

The pharmacy at DCZP sp. z o.o. now has a DEN type Automatic Tablet Dispensing and Packaging System (ATDPS), an automated medicine and patient specific dose packaging system, which produces strings of sachets.

The JVM DEN is modular, so the system can be extended by 36, 60 or 84 canisters. These units are placed on top of the machine. The system can fill the packets with single, multi and combi doses and print these with all important administration information.

One big advantage of the JVM machine is that the canisters that hold the tablets are electronically labelled so that they can be placed anywhere in the robot (called ACRSII).

Another advantage is that a 'canister bank' can be held for products that are used less frequently. Because the robot recognises the canister rather than the position, once calibrated, canisters can be brought into use as and when required.

Special Tablet System (STS) Guide Light

The DEN also works with the help of a Special Tablet System (STS) Guide Light of 60 cells. This means unusual tablets can easily be included in the production. Changes to the production can also be made efficiently.

With the help of the special tablet system guide light, unusual medicines, such as half tablets, tablets with a special shape and medication in the original packaging, can be added to the production. Each cell of the tray contains an LED light, which indicates where the medicine should be added. This makes work more accurate and helps reduce medication errors. With JVM's OnCube software, a STS medicine list can be printed out easily, to speed up the gathering of the necessary medicines.

The authorization is managed simply using RFID (a unique radio frequency code) and only a user with the correct access rights can start the production. The trays used for the STS are also fitted with an RFID chip, so that only the correct tray will be accepted by the pouch packaging machine.



Printing for safe checking of medication

The layout of the printing can be adjusted and all necessary information can be printed on the pouch. All sachets can also be identified by printing a unique bar code on them. The medicine sachets are airtight and can contain a single or many tablets of the same medication.

Hospital Information Systems ("HIS")

JVM's system is compatible with all standard hospital information systems and patient administration systems. Generally, Alteris, JVM's local partner in Poland, assisted with the interface, and in this case, the links between the HIS and JVM's OnCube software.

Meeting the strictest hygiene standards

JVM's DEN is constructed so that it can be easily cleaned, as most parts can be removed. This is an important advantage in the production of bulk sachets per patient according to the strictest hygiene standards.

Capacity and working processes

Prior to the introduction of the JVM DEN with 84 canisters, the pharmacists used to receive orders and deliver medications in their original boxes, once or twice a week to the six 24-hour psychiatric clinics within the hospital as part of an overall pharmacy service.

Since the introduction of the JVM DEN-84 plus the STS Guide light, about 162 patients are now served daily. Each day, an average of 1,112 tablets, made up of 52 medications, are packaged in 820 sachets. Items such as liquids and creams are sent together with the unit and multi doses to each of the six 24-hour psychiatric clinics within the hospitals. Unit/Multi dose helps Mrs Bogumila Koczela pharmacist (as well as her predecessor Kinga Burda-Malarz), to deliver the right medication at the right dose to the right patient for administration at the right time.

'Reconsider your processes'
Alteris assists the hospital with improving the medication management processes.]

Alteris also trains the pharmacy staff to handle the unit dose packaging operation each time there is a staff change in the pharmacy.

Ms Monika Czarnecka, Director of Infrastructure & Development is pleased to see the implementation of Unit Dose concept has significantly increased stock management efficiency, mostly by reducing 'expired' stocks of medications as well as the stock holding levels. The introduction of unit and multi dose, has resulted in savings of 12.5%. These savings come from a reduction of 'expired' stock of medication at each of the six 24-hour psychiatric clinics as well as a reduction of stock holding levels at the six 24-hour psychiatric clinics within the hospital by 25%.