

Case Study

Inpatient, outpatient and ward stock processing

 Darent Valley Hospital Pharmacy, Dartford (Kent), UK





① **FAMA Shelving System 300:**
Ultra-fast moving items and large packs are stored in sloping trays.



② **FAMA Worktop Shelves:**
Sloping shelves on top and FAMA Underbench Drawers together provide the perfect place to prepare prescriptions.



③ **Waiting room:**
Outpatients hand in their prescriptions at the reception and wait only a few minutes.

Facts and figures

Hospital

No. of wards: 25
No. of beds: 500

Average transactions per month

Ward stock orders: 160
Inpatient scripts: 8,300
Outpatient scripts: 1,080

CONSIS robot

Date of installation: September 2013

Capacity CONSIS E5: 18,760 packs

Goods in (Monday-Friday):
on average 980 packs/day

Goods out (Monday-Sunday):
on average 700 packs/day

Degree of automation:
85% of all ordered items (trans-
actions) are picked by the robot

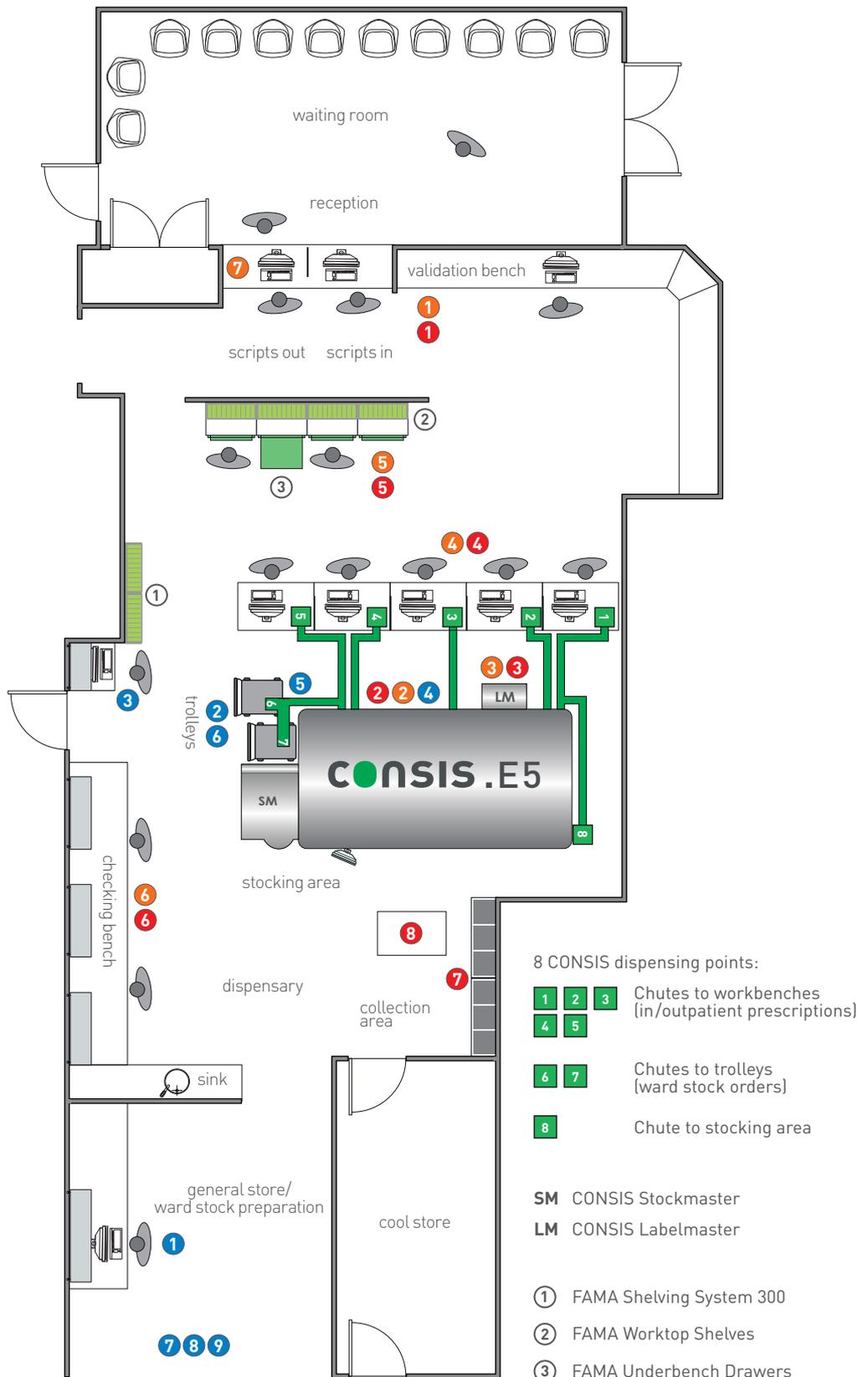
Workflow:

- Ward stock orders
- Inpatient prescriptions
- Outpatient prescriptions



CONSIS E5 robot

Approximately 85% of the daily required medicines are dispensed by the CONSIS robot.



Workflow and order processing

85% of the daily requested medicines are stored in the CONSYS E robot. While the orders of the hospital wards are dispensed in boxes, the inpatient and outpatient prescriptions are processed simultaneously. The three different kind of orders are described as follows and can be compared with the drawing on the left hand side.

Ward stock orders

Depending on their medicine needs, the 25 hospital wards have as many as two deliveries a week.



1 Ward stock orders are entered into the JAC stock management software to prepare a picking list.



2 A trolley with an empty box is placed under one of the robot's two chutes.



3 All automated items on the picking list appear on the CONSYS Navigator (robot software) screen. The dispensing process is started by clicking on the listed items.



4 Thanks to the multi-pick function several packs can be dispensed simultaneously.



5 Whilst the CONSYS is picking the order, the "non-robot items" are picked manually.



6 After the robot order is completed, the trolley is removed to make room for the next order.



7 Robot and manually picked items are merged.



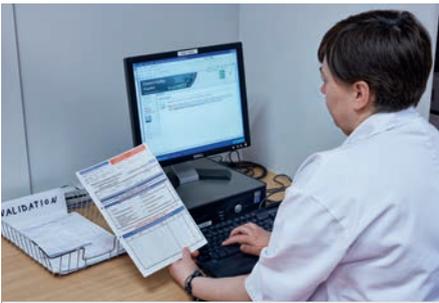
8 After the final check, the ward delivery is sealed...



9 ... and brought to the hospital ward.

Inpatient and outpatient prescriptions

The processing of inpatient and outpatient prescriptions is very similar and differs mainly in order of priority and in the final delivery.



1 1 Incoming prescriptions (in/out-patients) are collected and validated at the desk next to reception.



2 2 The order is sent to the CON SIS robot, which picks the packs from stock.



3 3 Each pack is labelled fully automatically before being dispensed.



4 4 All robot items are collected script by script.



5 5 At the FAMA Worktop Shelf, the non-robot items, such as injections, pots, liquids and large packs, are added...



6 6 ... before the final check is carried out at the checking bench.

Inpatient orders:



7 Completed inpatient orders are stored in transparent labelled bags at the collection area.



8 Several times a day, a pharmacy porter scans, seals and collects the ready scripts and takes them to the wards.

Outpatient orders:



7 Outpatient orders are brought to the waiting room reception within a few minutes.

Fully automated dispensing of medicine packs for ward stock orders, inpatient and outpatient prescriptions

Initial situation:

The pharmacy at Darent Valley Hospital had been storing and dispensing medicine packs with the help of CONSIS robots since 2003. After an operational transformation for the better, and a decade of reliable performance, the management decided to upgrade to the next generation CONSIS E robot and profit from a host of newly developed features.

Key objectives:

- Avoid stocking errors
- Reduce dispensing errors
- Improve and speed workflow with simultaneous processing of inpatient, outpatient and ward stock orders

Willach solution:

- Replace two older small robots with one new CONSIS E robot, including:
 - fully automated stocking with CONSIS Stockmaster
 - fully automated labelling with CONSIS Labelmaster
 - fully automated dispensing of ward stock orders in boxes
 - fully automated dispensing of inpatient and outpatient prescriptions to the work benches
- Fit FAMA Worktop Shelves to prepare and complete the prescriptions
- Incorporate FAMA Sloping Shelves 300 to store ultra-fast moving items and large packs for quick access

Benefits:

- Increased safety thanks to fully automated stocking and labelling
- Better working conditions through more intelligent pharmacy design. Less time spent walking and staff impeding each other
- Faster and more efficient workflow and order processing:
 - reduced waiting times for outpatients
 - improved delivery of inpatient prescriptions, primarily TTOs
 - ward stock orders now picked mostly automatically
- Clean and tidy stocking provides better hygiene and reduces scope for human error

consis
stockmaster



Benefit from fully automated goods stocking facility with the Consis Stockmaster. The packs are simply tipped into the stocking funnel, then stock is recorded and placed fully automatically.

consis
labelmaster



The CONSIS Labelmaster provides fully automated labelling of packs before they are dispensed – effortlessly and efficiently. That saves time and makes things safer because human error during labelling is reduced to a minimum.



"The CONSIS E robot is a good solution for our needs. Thanks to its fully automated stocking, labelling and dispensing, we have eliminated our picking errors. The CONSIS saves us up to 10 working hours every day – releasing staff resource to engage in patient contact activities and so helping us offer a more clinically focussed service. We have assurance around the safety and efficiency of our service and so patients are benefiting from a first-class healthcare provision."

Alison Moulton and Andrea Sparks
Pharmacy Managers

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