DISPENSING: A COMPARISON OF DIFFERENT MODELS IN COMMUNITY PHARMACY

Although most medicines are still dispensed by hand, new technology allows parts of the process to be automated. This infographic compares examples of the newer models, such as hub and spoke and centralised dispensing, with the traditional model.

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KEY

1. Regulation
2. Capacity
3. Safety
4. Efficiency

Traditional pharmacy

- Prescriptions are dispensed by hand in the pharmacy
- Average dispensing volume: about 7,000 items/month
- Estimated error rate: 0.04% (for the entire process)

Hub and spoke (different legal entities): proposed

- Registered spoke pharmacies use a hub in a different legal entity to assemble prescriptions, or registered spoke pharmacies from different legal entities form a cooperative and set up a hub dispensary.
- The spokes have an NHS contract but the hub does not.
- Patient interaction happens at the spoke pharmacy

Hub and spoke (same legal entity): Celesio

- Both hub and spoke are registered pharmacies. The spokes have an NHS contract but the hub does not.
- Up to 12 community dosage system (CDS) trays/minute and up to 30 repeat prescriptions/minute
- System uses image recognition. 2D barcodes on original packs are scanned and images captured at each step of the assembly of CDS trays
- No evidence of cost savings yet but frees pharmacists to spend more time with patients

Centralised dispensing: Pharmacy2U

- Registered centralised dispensary with NHS contract
- Up to 1 million prescription items per month
- Each prescription is barcoded, which is cross-linked with the barcode and label on each item. System is 99.9% accurate
- Four pharmacists needed compared with 18–20 pharmacists in traditional model
- Expected to be cost-saving at scale

Automated pharmacy: Rowa Technologies

- Robot picks up to 8 packages and delivers them within 8–12 seconds
- Eliminates picking errors
- 110–160 customers/employee/day with 2 minutes dedicated to each customer compared with 80–120 customers/employee/day with 40 seconds dedicated to each customer in non-automated pharmacy

Dispensed medicines are posted to the patient

Repeats prescriptions and community dosage system trays are automatically assembled at the hub and then sent to the spoke pharmacy

Patient interaction happens at the spoke pharmacy

Patient obtains a prescription via the GP or online.

Patient interaction happens online or via a call centre

Data from Pharmacy2U

Source: Celesio

Source: HSCIC, Department of Health

Source: Rowa Technologies

Infographic: MAG, Alisdair Macdonald