Controlled Drugs Management (CDM) Solution: Cost Reduction through Digitisation

Organisations implementing digital controlled drugs management solutions in Ambulance and Emergency Services primarily aim to:

- Improve medication quality and safety
- Meet national and local legislation and regulatory obligations
- Enable transparency with organisation-wide data access and analytics through system integration and
- Reduce administrative workload and minimise the risk of drug diversion.

While each organisation's starting point is different, digitisation enables savings by reducing upfront investment, lowering operational overhead, and improving labour productivity.

Software as a Service (Saas) is transforming how healthcare organisations manage applications. Delivered via the cloud on a subscription basis, SaaS reduces complexity, has predictable costs and enables rapid response to changing operational needs.

Together, SaaS and CDM deliver a range of benefits that directly support cost reduction and improved service efficiency.

Reduced Upfront and Infrastructure Costs

Software as a Service (SaaS) operates on a subscription (OpEx) model rather than requiring large capital expenditures (CapEx) for hardware, installation and on-premises IT infrastructure.

Lower IT Overhead and Maintenance

- HealthCare Software (HCS) manages server infrastructure, software updates, security patches, and system maintenance, which significantly reduces the burden and associated costs for in-house IT teams.
- CDM online training modules can be completed by paramedics in 15-20 minutes, reducing the burden and overhead of taking paramedics off-road time for extended periods of time

Faster deployment

CDM is a ready-to-deploy, off-the-shelf solution with configurable components that adapt to each organisation's emergency-management systems and processes, enabling significantly faster implementation compared with custom-built software.

Scalability and Flexibility

Customers can easily scale their usage (up or down) based on actual demand and only pay for what they need and use, avoiding the cost of over-provisioning for future growth.

Improved security and compliance

Delivered through Microsoft Azure within the customer's country, offering cybersecurity and compliance capabilities beyond typical in-house resources.

Remote access and flexibility

CDM is accessible securely from any internet-connected device, supporting both mobile paramedics and station-based workflows.

Improved Labour Productivity

Paramedics and Frontline Workers

- Quick, simple recording and witnessing of transactions in the field.
- Discrepancy prompts reduce errors and improve data accuracy.
- Automated incident creation and escalation save time for staff and managers.
- ePCR integration elminates duplicate clinical/compliance entry.

Reduction in Paramedic Administrative Time

CDM allows paramedics to record transactions quickly and removes duplicate clinical/compliance entry including where there is ePCR integration.

Example KPI:

- *Reduce paramedic administrative time per shift by 10–20% through streamlined CD recording workflows*

Why it matters: More time returned to direct patient care and less time spent on manual paperwork (supported by fast field recording and single clinical/compliance entry).

Managers

- Full investigations can be completed remotely from a desktop without having to travel to sites for physical examination.

- Digitally signed reports can be generated and emailed to auditors and regulators quickly and centrally, thereby reducing compliance costs.

> **Reduction in Time spent on Incident Investigations**
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> Because CDM automates discrepancy escalation and allows managers to conduct full investigations from their desktop, travel and manual review time are significantly reduced.
>
> **Example KPI:**
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> - *Reduce average investigation time per incident by 25–40% within the first 6 months.*
>
> **Why it matters:** Faster investigations free operational managers and reduce the administrative burden (supported by lines about automated incidents and desk-based investigations).

Supply Management Personnel

- Organisation-wide visilbity of controlled drugs stock, including items in transit.
- Imprest levels enable optimal stock distribution and reduce over-ordering.
- Batch tracking supports expiry and recall management
- Improved visibility of controlled drug stock levels across all locations and vehicles ensures controlled drugs are available when needed and reduce operational disruptions.

> **Improved Stock Level Optimisation**
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> Setting and monitoring CDM imprest levels help identify the right stock quantities at each location.
> **Example KPI:**
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> - *Reduce over-stocking and emergency replenishment events by 20–30% within 6 months.*
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> **Why it matters:** Better utilisation of inventory, fewer drug shortages, and lower wastage (supported by lines on imprest levels, visibility, and stock optimisation).

Automation

- Repetitive tasks such as report generation, stock management and incident notifications can be automated.
- Automation reduces labour costs, minimises human error and improves data accuracy.
- Paper drug books are only required during extended outages, reducing procurement costs

Reduction in Manual Reporting Effort

Because CDM automates report generation and provides digitally signed reports for auditors, organisations can dramatically reduce manual report preparation.
Example KPI:

- *Reduce manual reporting time for compliance and audit by 50–70% within the first quarter.*

Why it matters: Saves administrative labour hours and reduces human error (supported by automated reports and efficient audit exports).

Improved Incident Investigation

- CDM prompts paramedics to re-check counts when discrepancies arise
- Automatic and manual incidents are escalated instantly to managers
- Paramedics can attach notes and photos for context
- Managers can match related incidents (E.g. lost/found CDs) for faster resolution

Cost Savings Expectations

Actual cost savings vary across organisations. Customer feedback and market research for SaaS and CDM-style digitisation indicate the following common KPIs:

Ambulance services should apply their own cost metrics against the criteria identified.

Suggested CDM Cost Savings KPI Table

Potential Cost Saving	Suggested KPI (Example)	Current Cost Estimate (Example)	Future Cost Estimate (Example)
Reduction in Time Spent on Incident Investigations	Reduce average investigation time per incident by 25–40% within the first 6 months. 50% - 75% after 6 months	Investigations currently require significant manual effort and time including travel to remote locations.	Reduced through automation and desk-based workflows.
Reduction in Paramedic Administrative Time	Reduce paramedic admin time per shift by 10–20%.	High manual recording burden.	Reduced via streamlined CD recording and ePCR integration.
Faster Training Completion Times	90% staff training completion within first month; <20 min average.	Training takes long classroom sessions.	Reduced through online modules.
Reduction in Manual Reporting Effort	Reduce manual reporting time by 50–70%.	Manual reporting is time-consuming.	Automated reports and digital signatures.
Improved Stock Level Optimisation	Reduce overstocking and emergency replenishment by 20–30%.	Inefficient stock distribution.	Improved via imprest level monitoring.
Reduction in Drug Expiry and Waste	Reduce expired drug wastage by 25%+.	Stock expiry causes wastage.	Improved through batch tracking.

Decrease in Use of Paper Drug Books	Reduce paper book usage by 99.5%+.	Frequent paper-based logging.	Digital CDM used with uptime of 99.5%.
Increased First-Time Accuracy of CD Transactions	Achieve 95%+ first-time accuracy.	High error rates in manual recording.	Improved through discrepancy prompts.
Reduction in Travel for Managers	Reduce travel for investigations by 80%.	Managers travel frequently for checks.	Desk-based investigation enables remote work.
Faster Implementation vs Custom Solutions	Deploy system 30 - 50% faster.	Custom systems take long to build.	Off-the-shelf configurable deployment.