

Unit Dose Medication Distribution Project (UDMD)

The right drug, the right dose, given to the right patient, at the right time.....



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Island Wide Project Cost - by RHD	Budget
Capital Regional Hospital District	10,310,491
Cowichan Valley Regional Hospital District	884,168
Nanaimo Regional Hospital District	4,635,790
Alberni Clayoquot Regional Hospital District	1,128,840
Comox Strathcona Regional Hospital District	1,844,365
Mount Waddington Regional Hospital District	1,103,346
TOTAL CAPITAL COST	19,907,000

The total project cost for this \$19.9M initiative in CSRHD facilities is \$1,844,365 (CSRHD share is \$737,746). This includes purchase of unit dose packaging equipment, modifications to existing medication storage areas, purchase and installation of automated dispensing cabinets and system development costs.

Comox Strathcona Regional Hospital District	Total Project Budget (\$)
Total Infrastructure / Construction	136,656
Total Software / Interface	44,630
Total Automation / Equipment	1,179,149
Total Department Labour	483,930
TOTAL CAPITAL COST	1,844,365

UDMD - A Focus on the Future

- Establish a consistent medication system across all sites (acute, residential care, and health care centres)
- Deliver the majority of all medications (pills & capsules, liquids, narcotics, sterile products) in a unit-dose, and bar-coded format
- Enable an enhanced medication system where the medication order / verification / access by RN/LPN cycle time will be reduced to minutes from currently hours.

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Electronic medication administration record (EMAR)

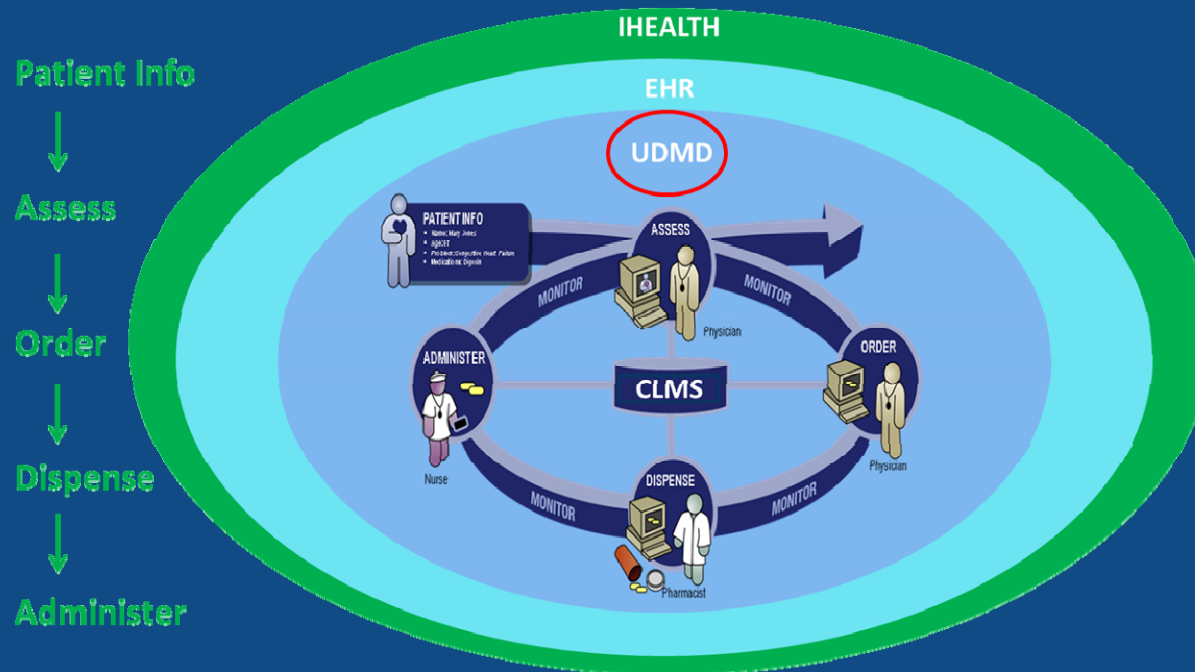
Bar code reader

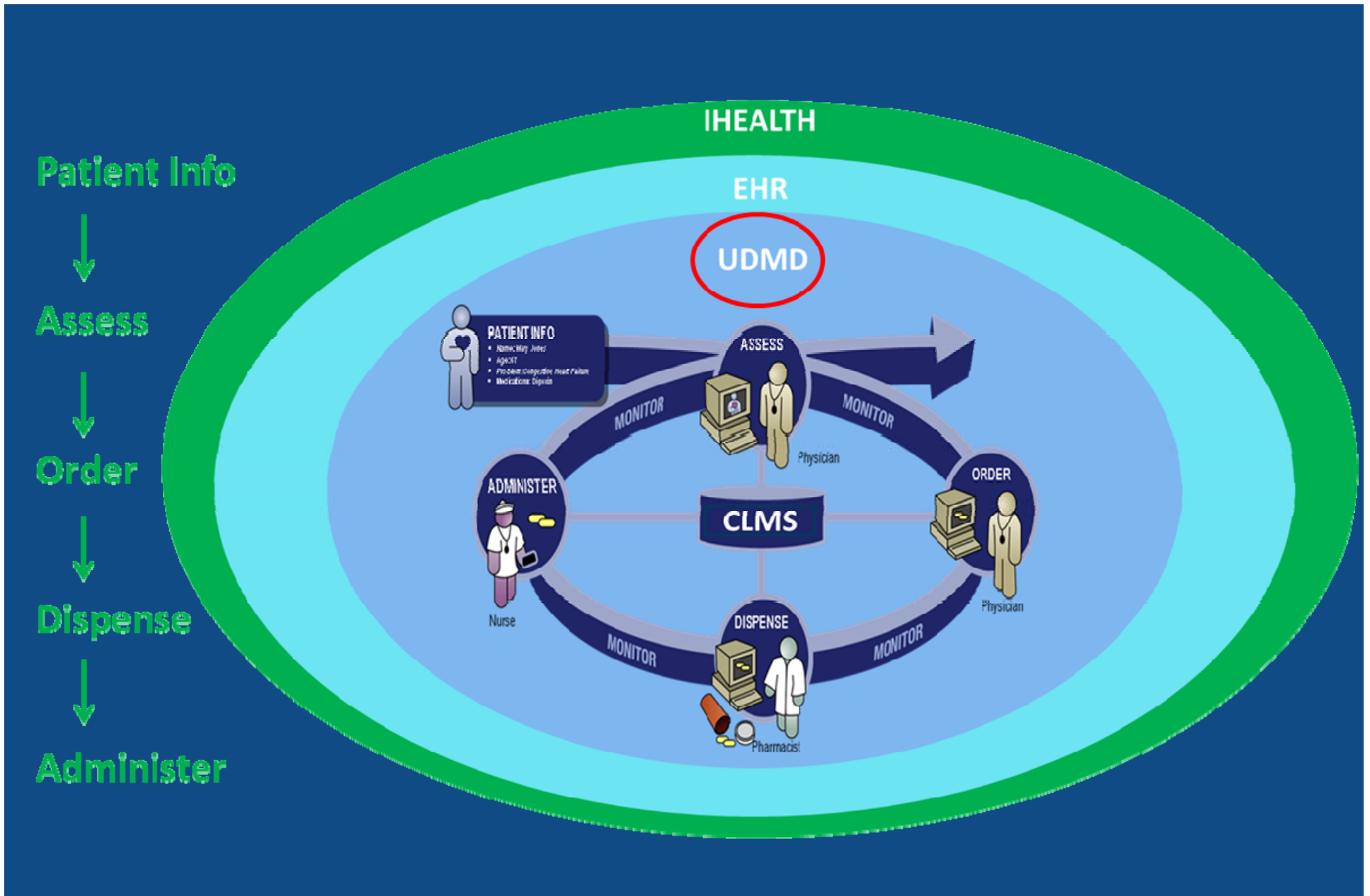
Integrated Medication Cart (IMC)

Unit-dose and bar-coded packaging

Medication Errors – Reduction Strategy

- Island Health is undertaking a significant, system-wide quality and safety improvement effort through the implementation of an advanced *Electronic Health Record* – which includes a *Closed-Loop Medication System (CLMS)*





Medication Errors – Reduction Strategy

- The CLMS will be enabled through the use of *unit-dose and bar-coded medications*, which support the reduction of adverse drug events and medication errors that occur within the medication ordering and administration processes.



The "*seven rights*" of medication administration:

The right medication, the right patient, the right dosage, at the right time, using the right route, for the right reason, and completing the right documentation.

UDMD Project Summary

- Development of unit-dose and bar-coded *medication production and distribution capacity* across the Island Health region that will include the following:
 - unit-dose packagers and verifiers for solids (pills & capsules)
 - unit-dose packagers for liquids
 - unit-dose packagers for narcotics
 - centralized IV admixture (CIVA)
 - bar-code add (continuous QA/QC on purchased unit-dose products to ensure the compatibility of the products bar-code to be scanned into the health and pharmacy information system)



UDMD Project Summary

- ***Renovations and/or new storage solutions*** will be required for every pharmacy supported medication storage location within all of our facilities - acute, residential care, and health care centres.
- ***Renovations to support new work flows, and/or new storage solutions*** will be required in every one of the Island Health pharmacies within the region.



UDMD Project Summary – CSRHD

- Development of unit-dose and bar-coded ***medication production and distribution capacity*** across the Island Health region that will include the following:
 - The new Comox Valley and Campbell River Hospitals are being supplied with new Arxium unit-dose packagers and verifiers for solids (pills & capsules),
 - Devices interface and integration into the enhanced medication system including box-pickers, automated dispensing cabinets, and CIVA sterile unit-dose product production.
- Renovations and/or new storage solutions will be required for every medication storage location within each of the following CSRHD facilities:
 - Tahsis Health Care Centre
 - Gold River Health Care Centre
 - Kyuquot Health Clinic
 - Zeballos Health Clinic
 - Cortes Island Health Centre
 - Sayward Primary Medical Health Care Clinic



Impact on CSRHD

- Significantly reduce adverse drug events
- Improved quality outcomes and patient safety
- Demonstrated financial and social benefits derived from expected length of stay (Canadian Institute of Health Research)
- This project has a “regional significance and value”

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- Questions