Multidisciplinary Drug Return/Wastage Minimisation Programme

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Computerized Automatic Refill System (CARS)

Automatically generate drug refill until:
• Off
• Discharged
• Marked as “Home Leave”
Benefits of CARS

• Enhance Dispensing Efficiency
• Enhance Medication Safety
  - ↓ manual data entry
  - ↓ interpret handwritten Rx
• Maintain Complete Patient Medication Profile
  - Ensure patient getting reasonable drug combination
    (Facilitate checking of drug Allergy, drug interaction......)

Isoniazid 50mg daily??
Or
Folic acid 50mcg daily??
Side Effects of CARS

• Increased Volume of Ward Drug Returns
  - Workload of processing returned drugs
  - Drug wastage

• Unnecessary Dispensing Workload

• Risk of Medication Error
  - Overstocking of unnecessary medication in wards
  - Screening of return medication in pharmacy
Vast Amount of Ward Drug Returns
Overstocking of Drug in Wards

Ward’s Fridge, Cupboard, Drug Trolley Jammed with Drugs
Errors During Screening of Returned Drugs

Tedious Job to Ensure:
✓ RIGHT Drug Replenished
   Back to RIGHT Picking Location
✓ Drug NOT EXPIRED
✓ Drug in Good Condition
Focus this Problems

Pharmacy, Over the Years, Had:

• Reviewed the patterns of drug return
• Introduced a few measures to try to contain the problems
  – generate refills medical wards in the afternoon (previously in the morning)
  – Review drug ward stock list
  – etc........
• Still ..........
Drug return problem exists

• So ..........
We Need Multidisciplinary Approach
Discharge List

• Discharge list record
  - Name of patient who will be Discharged on That Day
• Patient NOT yet Discharged because:
  - Wait for discharge medications
  - Wait for relatives/relations
  - Wait for portering service
  - etc......
Enhanced Communication Between Wards & Pharmacy

Nursing Staff FAX the discharge list to Pharmacy

- ALL Medical Wards,
- ALL Surgical Wards,
- ALL Orthopedic Wards
Withhold Drug Refills

- Withhold dispensing of refill medications
- By marking patient as “Home Leave” in CARS
Outcome Analysis

- One week study at Late April, 2007
- Monday to Friday (5 Working Days)
Unnecessary Refills Withheld

- Withheld refills of 203 Drug Items (~8% of Total Drug Refills)

- Projected *yearly* reduction in unnecessary dispensing workload
  > 10,000 Drug Items
Minimize Unnecessary Workload

- Drug Picking
- Drug Checking
- Porters' Load (Refills Drugs/Returned Drugs Delivery)
- Returned Drugs Screening

\[ X \ 10,000 \ \text{per Year} \]
Drug Expenditure Savings

Study Period:
- Withheld drug return expenditure >HK$7000
- Disposal of 1/5 of the drug (>HK$1500)

Yearly Projections
- Withheld drug return expenditure >HK$380,000

Yearly Savings of ~HK$80,000
More Savings

Consumables:  
Labels, Papers, Plastic Bags, etc.....

Landfills Cost

Save the Environment
Conclusions

- Enhance Medication Safety
- Save Manpower from Unnecessary Work
- Save Drug expenditure, Consumables Cost, etc......
- Save Our Earth
Thank YOU

Acknowledgements:
• Department of Medicine & Geriatrics
• Department of Orthopedics & Tramatology
• Department of Surgery