SINGAPORE HEALTHCARE SUPPLY CHAIN MANAGEMENT CONGRESS 2013

Singapore Healthcare Management 2013

SingHealth
Defining Tomorrow's Medicine

Bryan Lee
Singhealth Group Procurement Office

MEDICAL EQUIPMENT INFORMATION DATABASE

BACKGROUND

Note: The figures are for illustration purpose only

Medical equipment requires regular maintenance in order to deliver its expected performance and benefits. As there was no centralized database in place, Group Procurement Office (GPO) usually consolidate updated equipment list from all Singhealth institutions during each maintenance term contract renewal.

Sample Equipment List

NO	INSTITUTION	DEPT	DESCRIPTION	MODEL	SERIAL NUMBER	WARRANTY EXPIRING	NO. of PM/ ANNUM	1) COMPREHENSIVE MAINTENANCE PRICE BY YEAR ($)							LOANER UNIT
								01 Apr'13-31 Mar'14	01 Apr'14-31 Mar'15	01 Apr'15-31 Mar'16	01 Apr'16-31 Mar'17	01 Apr'17-31 Mar'18	TOTAL ($)	EXCLUSIONS*	YES (Y)/ NO (N)
1305	KKH	Ward 76	PHYSIOLOGIC MONITORING SYSTEMS	M9002A (M95)	DE843A9514	28-Jul-13	1	1,350	1,350	1,350	1,350	1,350	6,750	Exclude accessories, consumables, transducers and probes	NO
1306	SGH	WDS45MICU	PHYSIOLOGIC MONITORING SYSTEMS, ACUTE CARE, BATTERY POWERED	M95	DE843A9526	28-Jul-13	1	1,350	1,350	1,350	1,350	1,350	6,750		NO
1307	SGH	WDS54 NICU	PHYSIOLOGIC MONITORING SYSTEMS, ACUTE CARE, BATTERY POWERED	M97	DE03708389	08-Oct-12	1	820	820	820	820	820	4,100		NO

Different descriptions for the same model

PROBLEMS

- Description and model names of the equipment are not standardized across the institutions, analysis of spend and equipment landscape by modality is very challenging and time consuming.
- There are more than 2000 line items in the equipment list. How can we make better use of the data in the spreadsheet?
- Due to the lack of a centralized database in GPO, analyzing the equipment landscape for Singhealth is a challenge.

METHODOLOGY

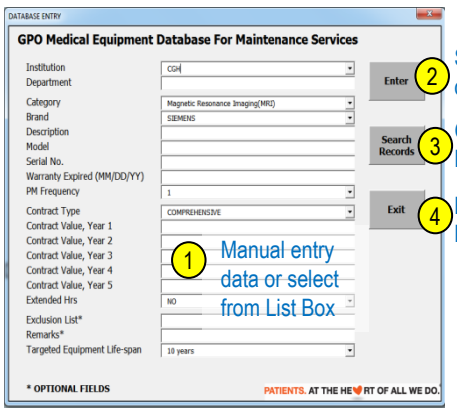
Database records system using:

- Excel and Macros
- Visual Basic Programming

PROPOSED SOLUTION

1. MAIN MENU

2. DATA ENTRY



1 Manual entry data or select from List Box

2 Store data into database

3 Go to Search Records

4 Back to Main Menu

3. SEARCH RECORDS

5 Input search information into the relevant fields

6 Tool-tip shows the entry expected from user

7 Show filtered results

8 Show all results

9 Back to Main Menu

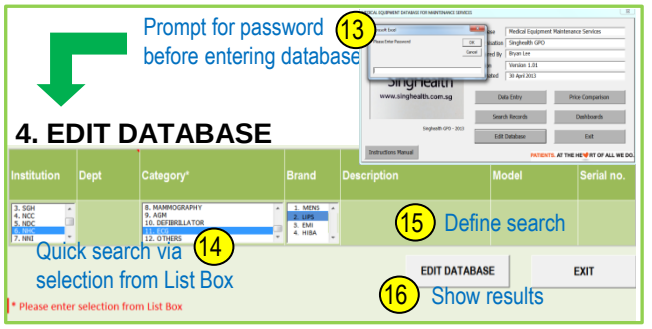
Generate Report

10 Go to Price Comparison

11 Sort report by Institution/ Category/Brand

12 Back to Search Records

4. EDIT DATABASE



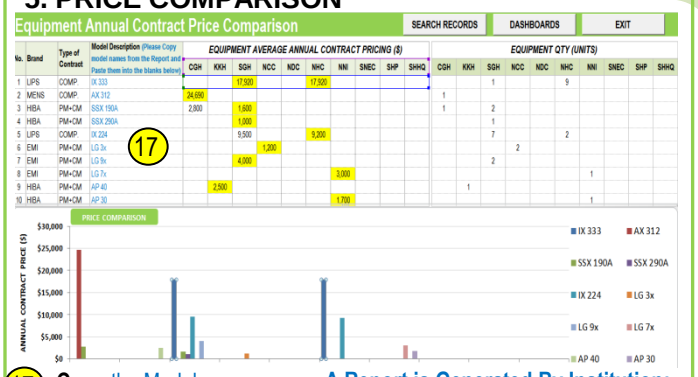
13 Prompt for password before entering database

14 Quick search via selection from List Box

15 Define search

16 Show results

5. PRICE COMPARISON

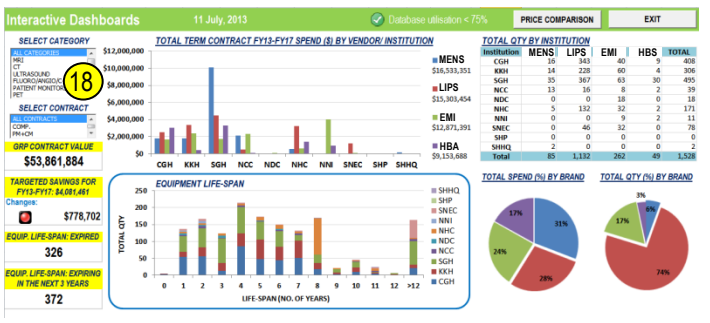


17 **Copy** the Model Descriptions from the report and **Paste** into the blank cells

A Report is Generated By Institution:

1. Ave annual contract price of that model
2. Equipment quantity of that model

6. DASHBOARDS



18 Select:

1. Equipment Category
2. Contract Type

A Report is Generated:

1. Total spend($) and spend(%) by vendor/brand/ institution
2. Equipment quantity by vendor/brand/institution
3. Overview of equipment life-span by institution. Equipment that has reached targeted life-span & those that are going to expire in 3 years time
4. Track changes to the targeted savings for the 5-year term contract

RESULTS AND BENEFITS

1. An overview on the age of equipment, identify and make plans for replacement.
2. Spend analysis by institution/ brand/ contract type.
3. Overview of supplier-equipment landscape
4. Tracking of savings: Actual vs Targeted
5. A quick way to compare contract prices across institutions and models
6. No need to spend hours to filter data and compile report for management.
7. Centralized database at GPO, easy to share in Excel format and zero costs to maintain.