EXCHANGE CART ANALYSIS—STORES

# 426 - 68

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COMMUNITY SYSTEMS FOUNDATION
The following is a summary of work to present on the design of an exchange cart system for the delivery of "stores" items. Outlined are the mechanics for partial implementation which may begin immediately. Work will continue on the design of special cart types, as specified in this report, once the initial progress report is accepted.
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EXCHANGE CART ANALYSIS - STORES

BACKGROUND

The design of an exchange cart system for the distribution of "stores" items was undertaken to improve the supply dissemination function. The direct objectives were reduction of time devoted to this function, the elimination of supply runouts both in the storeroom and at using points, and the elimination of wasted effort created by an inefficient system of requisition and bulk distribution. The present system includes the CSR aides requisitioning supplies for the nursing stations. These aides also assist the stores personnel in distributing supplies to the nursing areas. The aides devote 25.5 hours per week to these activities. The stores area current staff is six fulltime male employees and one full time female employee.

The following areas will be supplied under the proposed exchange system:

<table>
<thead>
<tr>
<th>NURSING STATIONS</th>
<th>SERVICE</th>
<th>NUMBER OF BEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 North</td>
<td>OB</td>
<td>51</td>
</tr>
<tr>
<td>2 South</td>
<td>Surg-Gyn</td>
<td>48</td>
</tr>
<tr>
<td>3 North</td>
<td>Surg.</td>
<td>33</td>
</tr>
<tr>
<td>3 South</td>
<td>Surg.</td>
<td>34</td>
</tr>
<tr>
<td>ICU</td>
<td>ICU</td>
<td>8</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>All</td>
<td>23</td>
</tr>
<tr>
<td>4 North</td>
<td>Med.</td>
<td>36</td>
</tr>
<tr>
<td>4 East</td>
<td>Med.</td>
<td>15</td>
</tr>
<tr>
<td>4 South</td>
<td>Psych.</td>
<td>36</td>
</tr>
<tr>
<td>5 North</td>
<td>Med.</td>
<td>40</td>
</tr>
<tr>
<td>6 North</td>
<td>Surg.</td>
<td>33</td>
</tr>
<tr>
<td>7 North</td>
<td>Med.</td>
<td>32</td>
</tr>
</tbody>
</table>

OTHER AREAS

Central Supply Room
Operating Room
Delivery Room
Nursery
SUMMARY

1. Implementation cost of an entire exchange cart program for the distribution of "stores" items is projected at $9,545.00 for carts plus $1,000 for in-hospital remodeling.

2. A partial exchange program can begin immediately with the acquisition of carts of the design specified in this report. Carts costs (23 carts) is estimated at $4,145.

3. The exchange cart system outlined in this report will function essentially the same as the laundry system, using standards instead of requisitions and exchanging fully stocked carts for used carts.

4. The carts specified for use in this system are the Erecta Shelf type and all costs projections are based on their use.

5. The layout of the carts and the schedule for carts delivery are detailed in this report. (See drawings Appendices B, C, & D and report section "Delivery Schedule and Cart Loading Patterns" page 3.

6. Through the use of standards and carts designed only to contain standard quantity levels, inventory will be disseminated evenly throughout the hospital leading to ultimate reductions in inventory costs. Actual inventory cost reductions will be calculated through conducting pre-cart and post-cart physical inventories.

7. The elimination of the role of the CSR aides in supply requisitioning for nursing areas will result in an annual savings of $2,500. Savings of approximately one person is anticipated in the stores area following rearrangements of stores layout and development of standards for cart stocking under the exchange system.
Exchange Analysis - Stores

SUMMARY OF ALL COSTS

- Cart Costs - Initial Implementation.................. $ 4,145.00
- Remodeling Costs - Initial Implementation........... 1,600.00
- Cart Costs - Implementation of Remaining Nursing Areas.. 3,600.00
- Carts Costs - Implementation of Other Areas............... 1,800.00
- TOTAL COSTS................................................. $10,545.00

SAVINGS SUMMARY

CSR Aides Removal from Inventory System.................. $2,500/yr.

Other savings such as in inventory consumption control and storeroom personnel unavailable at present time.
INTRODUCTION

The design of an exchange cart system for the delivery of "store" items is ready for partial implementation. The system consists of the use of Erecta Shelf type carts for the delivery function. Mechanics of the system will essentially be the same as that used by the laundry-restocked carts exchanged for used carts. As in the laundry system requisitioning is eliminated by use of standards.

Standards have been developed for all nursing stations of the hospital. These quantity levels have been correlated with admission statistics and developed using historical data. The Central Supply Supervisor has reviewed and approved all standards prior to acceptance as representative of hospital usage patterns. A trial run of two cart types was conducted on the 6 North nursing station to test the standards and the acceptability of the carts on the part of the nursing staff. The nurses liked the carts and stated that they could locate items easily without searching in numerous areas. As the exchange system is implemented, standards will be examined again.

Items for which standards have been developed are presented in Appendix-A, page 17.
SYSTEM DESIGN

The nursing stations were examined to determine practical storage locations. In analyzing these areas, an attempt was made to select areas which would contain supplies for a minimum of a one week period. This time period was selected to simplify inventory disbursement and delivery schedules. The North nursing stations presented the greatest obstacle since little storage space is available. Of the possible storage areas listed below those selected for use in the system are marked with an asterisk.

1. Soiled Utility Room *
2. Kitchen
3. Nurse Station
4. Medication Room
5. Linen Room *
6. Flower Room *
7. Treatment Room (currently used as patient room)

To use the selected areas in the exchange system it will be necessary to remove the shelving from the linen closets and remove the sinks in the flower rooms. Cart storage on the north stations will be: Flower Room - Cart "A", Utility Room - Cart "B", and Linen Room - Cart "C".

Storage areas for exchange carts on south wings will be confined to the supply rooms at the rear of the nursing stations.

The necessary remodeling costs for removal of the shelves and sinks was estimated by the Chief Engineer at $200 per floor x 5 floor = $1,000.
ITEM MIX PER CART TYPE

To capitalize on the use of the selected storage areas, carts of three separate designs are necessary. Items used together or needed for particular procedures are stored on the same carts. This has been done to eliminate unnecessary walking by the nursing personnel and to consolidate similar items on one cart. The cart types are designated CART "A", CART "B" and CART "C". Drawings of each cart type and lists of supplies per cart type appear in Appendices B, C, & D respectively, pages 19 thru 24. These cart designs will be able to sustain the nursing stations in the following manner:

CART "A" (75% of Stations - 81% of Total Beds)

<table>
<thead>
<tr>
<th>AREA SUPPLIED</th>
<th># &quot;A&quot; CARTS NEEDED PER WEEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 North</td>
<td>2</td>
</tr>
<tr>
<td>2 South</td>
<td>2</td>
</tr>
<tr>
<td>3 North</td>
<td>1</td>
</tr>
<tr>
<td>3 South</td>
<td>1</td>
</tr>
<tr>
<td>4 North</td>
<td>1</td>
</tr>
<tr>
<td>5 North</td>
<td>1</td>
</tr>
<tr>
<td>6 North</td>
<td>1</td>
</tr>
<tr>
<td>7 North</td>
<td>1</td>
</tr>
</tbody>
</table>

CARTS "B" & "C" (50% of Stations - 55% of Total Beds)

<table>
<thead>
<tr>
<th>AREA SUPPLIED</th>
<th># &quot;B&quot; &amp; &quot;C&quot; CARTS NEEDED PER WEEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 North</td>
<td>1 each</td>
</tr>
<tr>
<td>3 South</td>
<td>1 each</td>
</tr>
<tr>
<td>4 North</td>
<td>1 each</td>
</tr>
<tr>
<td>5 North</td>
<td>1 each</td>
</tr>
<tr>
<td>6 North</td>
<td>1 each</td>
</tr>
<tr>
<td>7 North</td>
<td>1 each</td>
</tr>
</tbody>
</table>
Exchange Cart Analysis - Stores

All areas not mentioned above, to be supplied with the items contained on the cart types, will be furnished supplies on carts of special design.

These special carts have not yet been developed. However, the areas which will need special distribution mechanisms are:

- Pediatrics--------Individually Designed Carts
- 2 North & 2 South---Special B & C Carts of Identical Design
- 4 South---------Individually Designed Cart
- 4 East----------Individually Designed Cart
- Nursery---------Individually Designed Carts
- ICU-----------Individually Designed Cart to Store "B" & "C" Cart Items

CART LOADING & SUPPLY DISTRIBUTION

The use of exchange carts will necessitate changes in the current procedures for supply distribution. Cases or boxes will no longer be loaded onto carts and broken open at the nursing station for stocking on shelves. These packages will be opened in the store room and the individual items placed on the carts in the designated areas where they remain until used. Empty boxes will remain on the ground floor. This will probably reduce some of the housekeeping work load. A list of those items which will have to be unpacked prior to cart loading appears in Appendix E, page 26.

Cart stocking and supply distribution should ideally be performed on the afternoon shift. (CSF Report - Total Stores Layout Revision, February 15, 1968).

The rationale for this is:

1. Traffic in the hospital is at a minimum and elevator waiting time is reduced.

2. Many suppliers make late afternoon deliveries. Should certain of these items be needed carts could not be completed on the day shift.
3. Crossflow of supplies would be limited thus reducing congestion and keeping cart loading time to a minimum.

INVENTORY RECORD KEEPING

Storeroom inventory balances and recording of item usage per using point should be handled in the following manner:

1. Stores bin card procedures should be continued using present methods.
2. Recording of item usage per using point can be accomplished through the use of a new form. The amounts restocked to used carts should be entered on this form. (See Appendix F for a sample of this form).

Therefore, two handwritten entries per item will be required to maintain the inventory system. Upon conversion to the automated inventory system the necessity to maintain bin cards will be eliminated. Inventory balances can be maintained through keypunching of cart usage statistics gathered on a form like illustrated in Appendix F. The other areas not on the exchange system can order supplies under the current requisition system and the item usage information can be keypunched from the requisitions.

DELIVERY SCHEDULE AND CART LOADING PATTERNS

MONDAY---------2 North - "A" Cart
               6 North - "A" Cart
               5 North - "B" Cart
               5 North - "C" Cart
               6 North - "B" Cart
               6 North - "C" Cart

Job Instructions - Monday

1. Deliver loaded Cart "A" to 2 North and exchange for used Cart "A".
2. Return with used Cart "A" to storeroom.
3. Restock Cart "A".
4. Deliver restocked Cart "A" to 6 North and exchange for used Cart "A".
5. Return with used Cart "A" to storeroom.
6. Temporarily store used Cart "A".
7. Deliver loaded Carts "B" & "C" to 6 North and exchange for used Carts "B" and "C".
8. Return with used Carts "B" & "C" to storeroom.
9. Restock Carts "B" & "C".
10. Delivery restocked "B" & "C" Carts to 6 North and exchange for used Carts "B" & "C".
11. Return with used Carts "B" & "C" to storeroom.

TUESDAY--------2 South - "A" Cart
7 North - "A" Cart
7 North - "B" Cart
7 North - "C" Cart

Job Instructions - Tuesday
1. Deliver loaded Cart "A" to 2 South and exchange for used Cart "A".
2. Return with used Cart "A" to storeroom.
3. Restock Cart "A".
4. Deliver restocked Cart "A" to 7 North and exchange for used Cart "A".
5. Return with used Cart "A" to storeroom.
6. Temporarily store used Cart "A".
7. Deliver loaded Carts "B" & "C" to 7 North and exchange for used Carts "B" & "C".
8. Return with used Carts "B" & "C" to storeroom.
Exchange Cart Analysis - Stores

WEDNESDAY--------5 North - "A" Cart
3 North - "A" Cart
3 North - "B" Cart
3 North - "C" Cart

Job Instructions - Wednesday

1. Deliver loaded Cart "A" to 5 North and exchange for used Cart "A".
2. Return with used Cart "A" to storeroom.
3. Restock Cart "A".
4. Deliver restocked Cart "A" to 3 North and exchange for used Cart "A".
5. Return with used Cart "A" to storeroom.
6. Temporarily store used Cart "A".
7. Deliver loaded Cart "B" & "C" to 3 North and exchange for used Carts "B" & "C".
8. Return to storeroom with used Carts "B" & "C".

THURSDAY--------2 North - "A" Cart
3 South - "A" Cart
3 South - "B" Cart
3 South - "C" Cart

Job Instructions - Thursday

Follow same pattern as Tuesday and Wednesday.

FRIDAY--------2 South - "A" Cart
4 North - "A" Cart
4 North - "B" Cart
4 North - "C" Cart

Job Instructions - Friday

Follow same pattern as Tuesday and Wednesday.
COST OF INITIAL EXCHANGE CART PROGRAM

The cost to purchase the initial exchange carts is estimated at $4,148. This figure is based upon the number of mechanisms required for the proposed system and assumes the use of Erecta Shelf Carts*. The exact specifications for these carts appear in Appendix G page 28.

Carts Required

Nine - "A" Carts @ $165 = $1,485.00
Seven - "B" Carts @ $145 = 1,015.00
Seven - "C" Carts @ $235 = 1,625.00

$4,148.00**

* Erecta Shelf Carts were chosen based upon price and flexibility. Other manufacturers considered include, MacBick, Institutional Industries, Herman Miller and Colson. All had higher prices evaluated by cost/nursing station.

** Cost figures supplied by George B. Williams Co. current supplier to the hospital of the Erecta Shelf Carts.

The projected cost for the remaining nursing areas which will require separate carts of special arrangement is $3,600. This figure is based on the estimated need of twenty (20) carts priced at the average cost of the "A", "B", & "C" cart designs ($180.00/cart). The nursing areas, however, are not the only areas which can be supplied on the exchange supply basis. Other areas to be considered include:

1. Operating Room
2. Delivery Room
3. Central Supply Room

An estimated ten (10) carts will be required to handle the above additional areas at a cost of approximately $1,600.
SUMMARY OF EXCHANGE SYSTEM CART COSTS

Cost of Initial Implementation (23 Carts) .............. $4,145.00

Cost of Implementing Remainder of Nursing Areas To Exchange System (20 Carts) .... 3,600.00

Cost of Implementing Other Areas To Exchange Program (10 Carts) .............. 1,200.00

TOTAL ESTIMATED EXCHANGE SYSTEM COSTS ................ $9,545.00
POTENTIAL SAVINGS

Standards for cart loading and delivery times cannot be developed until actual implementation of both the revised stores layout and the exchange cart system. However, it is anticipated that some time savings will be realized.

Initial staffing saving can be realized as a result of eliminating the role of CSR Aides in the requisitioning of items and the checking of delivered goods. The time savings of the CSR Aides amounts to 25.5 hours per week or 1326 hrs./yr. This represents $2,500.00/yr. in potential direct labor savings.

Other benefits of the cart system are:

1. Even distribution of inventory due to standards and cart limitations controlling supply allotment by using point.

2. Simplified development of inventory order points because of a controlled supply release (as opposed to emotional determination of supply allotments).

3. The use of standards which prevent runouts of items necessitating extra trips to the floor in order to restock a single item.

4. Elimination of telephone calls to request the additional supplies.
CART USING PROCEDURES - NURSING STAFF

To maintain the exchange cart system the following methods of cart use must be adhered to:

1. All items, such as dressing trays, used in direct administration to patient, should be removed from carts as needed.

2. All items packaged in quantities and stored on carts in packaged form, such as syringes (100/box) should be removed from carts when needed. (E.g. If the supply of 3cc syringes in the medication room is depleted, a box of 100 3cc syringes should then, and only then, be removed from the cart.)

The above procedures should apply to the usage of all items stored on the carts. A list of the items which fall into these two classifications appears in Appendix II, page 30.

EXCHANGE CART SYSTEM MAINTENANCE

To keep the exchange program operative it will be necessary to control the items permitted to be distributed via the exchange system. It may also be necessary to adjust the standards set for items allocated to the carts. Therefore, it is recommended that a committee be organized to include a Nursing Representative, the Purchase Director, the CSR Supervisor, the Linen-Stores Manager, a member of the Administrative Staff, and an I.E. Staff member.

The Nursing Representative would be responsible for providing feedback relative to any problems encountered with the system. The Purchase Director would provide the necessary information relative to new or discontinued items. The CSR Supervisor would provide usage estimates for new items and provide usage statistics on items ordered through the requisition system. The Linen-Stores Manager would maintain the usage statistics by area (using the form in Appendix F) so that adjustments in standards can be made if necessary.
INVENTORY CONTROL AT USING POINTS

The use of the carts proposed in this report will restrict stock disbursement to the standard quantities because of their design.

Once carts are delivered to the using area and stores personnel return to the storeroom, the control of supplies is in the hands of the users. No matter what type of cart or other delivery mechanism is employed to transport and hold supplies to and at the using areas the delivery mechanisms cannot control the consumption rate of supplies. Supplies are consumed through genuine use, wasteful release to patients, and pilferage. The objective is to restrict consumption to genuine use. Therefore, some human element must be injected into the system to govern supply consumption rates. Perhaps, head nurses should be held responsible for supply consumption. This can be achieved if the proper steps are taken to develop a management system of control. The use of indicators, in a report format, to include admission statistics, consumption measurements of certain key supply items (quantities), and the cost of items consumed is suggested. The report should have provisions for displaying trends in consumption rates by showing last months rates, etc., correlated with the number of patient days or admissions per nurse station. The following list of items could be used in the report format on a per nursing-station basis:

1. Admission Kits
2. Disposable Catheterization & Dressing Trays
3. Latex Gloves
4. Syringes
5. Tissues
6. Water Pitchers
FORMS DISTRIBUTION

As yet, forms have not been included in the exchange program for two primary reasons:

1. A number of the forms will soon change in design (to tab card size).
2. An alternate distribution method which will require fewer inventory bin card entries and enhance forms inventory order point recognition is possible.

Forms should be distributed to nurse stations and other ancillary areas via a single bulk cart requiring one round trip of all areas per week. At the using points special shelving must be provided for the holding of forms. All holding areas should be labeled and organized so as to correspond to the layout of the forms distribution cart. The forms holding areas at the nurse stations etc. should have predetermined amounts of space allocated for each form according to usage patterns. The forms should simply be restocked to the top of the allotted area. This system will require fewer postings to the bin cards of each form since the cart could be restocked once a week with each form. The cart too, should have predetermined space allotments per form type. Inventory order levels could be easily observed (visually) and more attention would be paid to printed order points since numerous postings per "form" bin card would be eliminated.

"SOLUTIONS" DISTRIBUTION

The current method of "solutions" distribution should be continued until it can be converted to a separate exchange cart system.

STORES PERSONNEL:

Annual turnover of stores personnel is greater than 100%. Constant shortages of personnel and the time required to train new employees inhibits the smooth functioning of the stores area. It is suggested that consideration be given to changing certain job specifications so that older men (and possibly even women) can be used to fill these positions in an effort to stabilize the staffing of this area.
APPENDIX
APPENDIX A

ITEMS INCLUDED IN INITIAL EXCHANGE PROGRAM

Adhesive Tapes 1/2", 1" & 2"
Admission Kits
Alcohol Swabs
Applicators, 6" Sterile
Applicators, 6" Non-Sterile
Bags - #2, #10, Barrel, & Sterilization
Band Aids
Bath Mats
Bedside Waste Bags
Catheters - Foley #18, #16, & #14
" - Straight
Closed Drainage Units
Cups - Cold 5 oz., Hot 8 oz., & Medicine 1 oz.
Enema Admission Units
Enema Soap
Eye Care Dressing Trays
Finger Cots
Gauze, 2" Rolls
Gloves, #8075, #8080, #8601, #8611, & #8821
Hankies
Irrigation Trays, #4210, #4215, & Veg.
Lumbar Puncture Trays - 18 Gauge & 20 Gauge
Micropore Tapes - 1/2" & 1"
Mid-Stream Catch Trays
Modess Pads
Exchange Cart Analysis - Stores

Appendix A (Cont.)

Morgue Packs

Needles - 16 gauge, 21 gauge, & 25 gauge

Needler Containers

Paper Slippers

Pressure Tape 3/4"

Profuse Dressing Trays

Safety Pins

Sanitary Belts

Simple Dressing Trays

Specimen Containers, 1/2 pint

Straws - Flex

Suture Removal Trays

Syringes - 3cc, 5cc, 10cc, 20cc, 50cc, Insulin, TB, Asepto & Toomey

Thermometers, Oral & Holders

Tongue Blades, Sterile

Topper Bandages, 4" x 3"

Tubes, #5 & #10

Underpads

Urinals

Urine Specimen Bottles

Venous Pressure Trays

Water Pitchers

Water Pitcher Liners
CART - "A"

(See following page for code equivalents)

CART - 16" D. X 70" W. X 85" H.

Scale - 1" = 1'

(See chart for code equivalents)
CART "A" CONTENTS

1. Admission Kits - 36
2. Hankies - 120
3. Disposable Pitcher Liners - 1 Box
4. Disposable Slippers - 10 pr.
5. Bath Mats - 250
6. Bedside Waste Bags - 400
7. #10 Tubs and #5 Tubs, both with Lids - 5 ea.
8. Water Pitchers - 36
9. Cold Cups 5 oz. - 1,000
10. Medicine Cups 1 oz. - 1,200
11. Underpads - 250
12. Hot Cups - 250
13. Urinals - 10
CART - "B"

CART - 10" D X 48" H X 35" A
(See following page for code equivalents)

Scale - 1" = 1'

(Signed)
CART "B" CONTENTS

1. Irrigation Tray #4210 - 40
2. Irrigation Tray #4215 - 12
3. Mid-Stream Catch Tray - 24
4. Enema Admission Units - 15
5. Vag. Irrigation Trays - 2
6. 3/4" Pressure Tape - 1 roll
7. Urine Specimen Bottle Caps - 50
8. Morgue Packs - 3
9. Enema Soap - 1 Box
10. Sanitary Belts - 12
11. 1/2 pint Specimen Cups - 25
12. " " " Lids - 25
13. Urine Specimen Bottles - 50
14. Catheter, Foley #18 - 6
15. " " #16 - 8
16. " " #14 - 6
17. " " Straight - 6
18. Sterilization Bags - 30
19. 1/6 Barrel Bags - 50
20. #2 Bag - 50
21. #10 Bag - 50
22. Medics Pads - 8 Trays
23. Closed Drainage Units - 10
CART-"C"

(See following page for code equivalents)
CART "C" CONTENTS

1. 3cc Syringes - 5 Boxes
2. 5cc " - 2 Boxes
3. 10 cc " - 1 Box
4. 20 cc " - 1 Box
5. 50cc " - 1 Box
6. Insulin " - 1 Box
7. TB " - 1 Box
8. Toomey " - 1 Box
9. Applicators, 6" Non-Sterile - 1 Box
10. " 6" Sterile - 1 Box
11. Tongue Blades, Sterile - 1 Box
12. Flex-Straws - 1 Box
14. Disposable Gloves #8811 - 1 Box
15. " #8821 - 1 Box
17. Disposable Gloves #8075 - 1 Box
18. " #8801 - 4 Boxes
19. " #8080 - 1 Box
20. Alcohol Swabs - 10 Boxes
21. Profuse Dressing Trays - 112 ea. (all locations)
22. Tepper Bandages 4" x 3" - 4 Boxes
23. Suture Removal Trays - 50
25. Thermometer Holders - 5 ea.
<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Quantity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Adhesive Tape - 1/2&quot;</td>
<td>6 Rolls</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>&quot; - 1&quot;</td>
<td>3 Rolls</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>&quot; - 2&quot;</td>
<td>5 Rolls</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Micropore &quot; - 1/2&quot;</td>
<td>1 Box</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>&quot; - 1&quot;</td>
<td>1 Box</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Finger Cots - 1 Gross</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Needles - 18 gauge</td>
<td>1 Box</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>&quot; - 21&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>&quot; - 25&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Needle Containers - 5 ea.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Gauze - 2&quot;</td>
<td>6 Rolls</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Bandaids - 100 ea. (1-Tray)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Safety Pins - 1 Gross</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Lumbar Puncture Tray - 18 gauge</td>
<td>2 ea.</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>&quot; - 20 gauge</td>
<td>2 ea.</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Simple Dressing Trays - 40 ea. (all locations)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Eye Care Dressing Trays - 20 ea.</td>
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<td></td>
</tr>
</tbody>
</table>
APPENDIX F

ITEMS TO REQUIRE UNPACKAGING IN OPERATING ROOM
(Not Required Prior to Exchange Cart)

1. Adhesive Tapes
2. Bath Mats
3. Eye Care Dressing Trays
4. Gauze 2" Rolls
5. Gloves - #8075, #8080, #8801, #8811, & #8821
6. Hankies
7. Irrigation Trays #4210, #4215
8. Mid-Stream Catch Trays
9. Profuse Dressing Trays
10. Sanitary Belts
11. Simple Dressing Trays
12. Specimen Containers, 1/2 pint & Lids
13. Suture Removal Trays
14. Underpads
15. Water Pitchers
## CART "A" INVENTORY STATISTICS

<table>
<thead>
<tr>
<th>EDP #</th>
<th>ITEM</th>
<th>STANDARD</th>
<th>AMT. USED</th>
<th>DIFFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>007090</td>
<td>Admission Kits</td>
<td>36 each</td>
<td></td>
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<tr>
<td>007530</td>
<td>Hankies</td>
<td>120 each</td>
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<tr>
<td>007992</td>
<td>Water Pitcher Insert</td>
<td>1 box</td>
<td></td>
<td></td>
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</tbody>
</table>

**SAMPLE**

("B" & "C" Format Identical)
CART C1

2 - Reinforced Uprights (18" x 62")
5 - Shelves (18" x 60")
15 - Shelf Dividers (18" x 7-1/2"")
4 - 6" Swivel Casters (One with Swivel Lock)
1 - 18" x 60" Dolly Fully Bumpered
5 - Pullout Drawers & Hangers
26 - Bin Marker
2 - Back Ledges (3" h x 60" w)

All components listed above are standard Ercota Shelf components.
APPENDIX C

CART SPECIFICATIONS

The cart types selected by CSF for use in the exchange program are the Erecta Shelf Carts. The carts should have reinforced uprights and swivel 6" casters; one caster having a swivel lock for cart guidance while in transit. The exact components required per cart design - "A", "B", & "C" carts are presented below.

CART "A"

2 - Reinforced Uprights (18" x 63")
4 - Shelves (18" x 60")
8 - Shelf Dividers (18" x 7-1/2" h)
15 - Rods withTabs
4 - 6" Swivel Caster (One with Swivel Lock)
1 - 18" x 60" Dolly Fully Bumpered
1 - Pullout Drawer & Hanger
11 - Bin Markers

CART "B"

2 - Reinforced Uprights (18" x 52")
5 - Shelves (18" x 42")
6 - Shelf Dividers (18"w x 7-1/2"h)
5 - Shelf Dividers (18"w x 3-1/2"h)
10 - Rods with Tabs
4 - Swivel Caster (One with Swivel Lock)
1 - 18" x 42" Dolly Fully Bumpered
2 - Pullout Drawers & Hangers
1 - Drawer less Hanger
12 - Bin Markers
APPENDIX H

CART USAGE RESTRICTIONS
Direct Administration Items (Removed Individually From Carts)

Admission Kits
Asepto Syringes
Bags - All
Bath Mats
Catheters - All
Closed Drainage Units
Cups (Cold 5 oz. & Hot 8 oz.)
Enema Administration Units
Eye Care Dressing Trays
Gloves, Latex-”x 8075, 8080, 8811, & 8821
Hankies
Irrigation Trays - #'s 4210, 4215, & Vag.
Lumber Puncture Trays - 18g & 20g
Mid-Streak Catch Trays
MODESS Pads
Morgue Packs
Paper Slippers
Profuse Dressing Trays
Sanitary Belts
Simple Dressing Trays
Specimen Containers, 1/2 pint
Suture Removal Trays
Thermometers, Oral & Holders
Tuba #5 & #10
Under Pads
Urinals
Urine Specimen Bottles
Venous Pressure Trays
Water Pitchers

**ITEMS TO BE REMOVED IN PACKAGED QUANTITY LOTS**

Adhesive Tapes - All
Alcohol Swabs
Applicators, 6" Sterile
Applicators, 6" Non-Sterile
Band Aids
Cups - Medicine 1 oz.
Enema Soap
Finger Cots
Gauze, 2" Rolls
Gloves, #8801
Micropore Tapes - All
Needles - 10 g., 21g., & 25g.
Needle Containers
Pressure Tape 3/4"
Safety Pins
Straws - Flex
Syringes, All Except Acepto
Tongue Blades, Sterile
Topped Gauges, 4" x 3"
Water Pitcher Liners
TO: Mr. Sydney C. Palmer, Administrator  
Sinai Hospital of Detroit  
April 17, 1963

CC:  
Mr. Kenneth Deltasie, Assistant Administrator  
Mrs. Mary Lodge, Director of Nursing  
Mr. Andrew Buyn, Purchasing Director  
Mr. Arnold Katzman, Linen-Stores Manager  
Mrs. Lee Shelton, CSR Supervisor  
Mr. Benno Levi, Controller

FROM:  Mr. Jerry Milezynski, Project Engineer

SUBJECT: Addendum to Exchange Cart Analysis - Stores (NG-SN-35)

In the event that a standard quantity level in the exchange cart system becomes depleted prior to the established delivery day for a using area, or, that using areas request items not on the exchange basis, the following two alternatives to handle these exceptions are presented:

ALTERNATIVE "A"

NON-CART ITEMS

Nursing areas may order items not included in the exchange cart system through the use of a special requisition form. So that Nursing may order properly (including EDP # of items ordered, etc.) and that they may know what is available in the Storeroom they should have a catalogue listing similar to the one currently being utilized. To obtain items under this system they must send requisition, via tube, to the Storeroom prior to their scheduled delivery day for exchange carts. The requested items can be delivered with the exchange carts. To eliminate the requests of items not permitted to Nursing areas, the catalogue should only contain items permitted to Nursing areas.
CART ITEMS

In the event that a run-out does occur of an exchange cart item, a telephone call to the Storeroom should be made by the requesting area. In the Storeroom, the telephone message should be recorded by the "Solutions" clerk and the written message conveyed to the Linen-Stores Manager, who will take corrective action. The message content should include the name of the person calling, the area, and the item needed. The Linen-Stores Manager should decide the quantity of the item requested that should be distributed to the requesting area. The written messages should be retained and presented at the meetings of the Exchange Cart Committee where evaluation of standards, etc., will be conducted.

ALTERNATIVE "B"

All requests for run-out items on the cart system and for items not included in the cart system could be channeled through CSR. The aides in CSR would write the requested quantities in on the current requisition/catalogue form. The CSR aide would pull the requested items from the Storeroom and deliver them to the requesting area.

The requisitions will be retained and presented at the Exchange Cart Committee meetings for review of standards, etc.
page 10 - I can't agree with any stockpiling of supplies in the nursing units.

page 11 - Storeroom duplicating Central Supply

"..." -及时 delivery as we now do it, but where does it originate?

page 15 + 16 in being printed

Eldercare program pp. 15

pp. 16 Solutions Personnel Turnover