6 Steps to Surgical Preference Card Optimization

Eliminate Waste Items to Create Efficiency and Cost Savings.

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The Healthcare Challenge

In today's healthcare arena, many health systems are facing immense pressure to improve the overall financial position of the health system, without sacrificing patient care.

While there are multiple approaches used to achieve this goal, the main approach utilized by continuous improvement teams is to implement cost savings projects which increase value and/or decrease expenses. Generally, this means reducing the overall amount of material spend and reducing inefficiencies. Within the surgical suite, this translates to a savings in material cost per case, and is achieved by ensuring that the correct amount of material is pulled and issued for each surgical case, without excess material having to be returned and restocked. In surgical cases, the main driver to hard dollar savings is to have the most efficient processes in place; those which are supported by efficient, optimized Physician Preference Cards.

USC Consulting Group (USCCG) has implemented improvement programs at various hospitals and healthcare systems across the U.S. The Six Steps contained in this paper can help you to optimize preference cards to successfully achieve true, sustained savings. While this process may seem overwhelming, when the right tools are implemented and utilized correctly, the solution can allow one to not only become an expert at preference card materials management, but also become equipped with the knowledge to transform data into actionable intelligence, and the ability to sustain the initiative.

A Savings Opportunity

Physician Preference Cards act as the bill of material in the Operating Suites, and are the recipe to success for obtaining new cost savings. These cards, which can be paper or electronic files, indicate what material and instruments need to be used during a scheduled surgical procedure, as well as other preferences pre-determined by the Physician. Another major importance of these cards is that they help to document what materials are actually used during the case, and ultimately, what is charged to the patient. In a perfect world, all of the items on the preference card are issued and actually used on the case.

Often times, the Physician Preference Cards are managed and updated by nurses, and the Physician usually has limited involvement in the process of maintaining the cards that document their procedures. The material requested on this card is often physically selected by non-clinical resources that may be unable to distinguish what is truly required, making it absolutely essential to ensure that preference cards are efficient and up-to-date. Preference cards are typically first categorized by ICD-9 code or procedure type, and then by physician specific. The material indicated on the card is then selected by Central Sterile or Central Service technicians. Once the material is selected, it is stored in a case cart, and usually remains in a sterile area until the procedure is to be performed. While the complexity and use of technology to maintain these cards can fluctuate from health system to health system, the Preference Card Database is generally stored in the hospital's Perioperative Management System, or Surgical Scheduling Software.

While many health systems have made efforts to optimize or improve the efficiency of their preference cards, most ultimately fail.
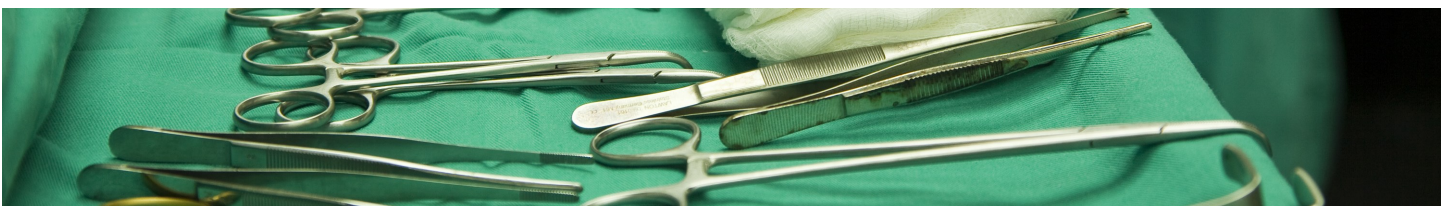
A Potential Solution

Preference Card optimization projects may deliver initial short term savings, but most health systems are unable to sustain the process – leaving them to wonder what more can be done to generate cost savings and further reduce material waste. Without tools and processes that continuously drive improvement, health systems are left with short term gains.

LINCS®, a software platform from USC Consulting Group, is able to evaluate data simultaneously from both the perioperative scheduling/management software and the inventory management system, to provide actionable insight leading to optimized preference cards and sustained results.

A single, un-optimized preference card can drive up waste – and cost - in a number of ways. As the amount of material issued to the Operating Rooms increases, the likelihood that this material will be unnecessarily consumed, either by items being opened in advance and not used, or items being damaged by excessive, unnecessary handling, also increases. Un-optimized preference cards increase both the amount of material being issued, and the number of transactions necessary to process the material. Issuing more materials than necessary leads to an increase in the number of returned items, which increases the amount of time it takes to pick and select the material to build the case cart. This increases labor costs, as more labor is needed to pick the amount of "unnecessary" material requested. The extra cost associated with wasted material and labor can add up very quickly when compounded over thousands of preference cards and cases.

LINCS allows for the improved ability to create a stable and sustainable preference card optimization process. LINCS provides the proper metrics, reporting, and analysis tools to help people evaluate which items are being used and returned more frequently than others, which items are being wasted, which items should remain on the preference cards, and which items should be removed. LINCS also provides tools to help health systems sustain optimized preference cards over the long term.

Optimizing preference cards is an on-going process, not an event, and the following six steps can help you start down the path.

Step 1 — Create Accountability

Accountability begins by grouping cards into categories (ICD-9 codes, service lines, like procedures, etc.) Each group of cards should be managed and "owned" by a single resource, or process owner, now and in the future. Each category owner should be assigned a number of cards that they can easily manage and should be fully aware of their responsibilities before proceeding. All assigned individuals will not only will be responsible for updating and cleansing preference cards in the current state, but will be responsible for ensuring that these improvements are sustained and savings is continuously achieved in the future. It is important for the project leader to determine how many cards each individual will be accountable for, given the scope of their other job responsibilities.

Step 2 — Cleanup the Card Database

Once a resource has been selected to oversee a group of cards, the true analysis can begin. The first step to optimizing preference cards is to cleanse the preference card database. The initial analysis should generate a usage report of the preference cards, and the case volume associated with each card. This data is used to determine which preference cards should be optimized first. Initially, the preference card system must be reviewed to determine the total number of cards, and when each card was last used. Cards with zero usage, cards belonging to Physicians no longer in the hospital, cards for procedures no longer being conducted, and cards without use in an 18 month period, should be archived from the current Preference Card database. The database should then be reviewed to see if there are duplicate cards, new versions of cards, or cards with different titles for the same procedure that can be consolidated.   It is helpful to initially use a Pareto Analysis, and its principle which asserts that 80% of measured effects come from 20% of the possible causes. In this case, we begin by looking at only the top 20% of the cards based on annual usage. This will allow the resource to devote their attention to the cards with the biggest financial impact – those with the highest annual usage and procedures with the highest volumes. Removing items from these cards will yield the greatest savings, and also provide the biggest multiplier to savings. Once the top 20% of cards, based on annual usage, have been identified and selected, the resource should also run a similar report to obtain the top 20% of procedures by volume to determine the variance between what is issued and what is used. Once this data is obtained, the resource can analyze which items on all of the selected cards have the largest variance between what is issued and what is used, and can begin the item analysis to remove material.

Step 3 — Analyze the Items

Continue to use the Pareto Analysis to determine which items can be eliminated from each card. This step identifies the usage of each specific item. It is imperative that data is robust and accurate in order for cost savings to be achieved. Begin by identifying where the largest variance occurs between what is issued and what is used. Using the Pareto Analysis allows you to easily identify which items have been returned most frequently and therefore may be a candidate for removal from the preference card. The accountable resource must then determine, in collaboration with a clinical resource, which items can be removed from the card, and which must remain. Not all unused items can be removed from preference cards due to regulations or operating practices, but the quantity of many items can still be reduced. This process encourages and motivates staff to care about materials cost and usage, and excites them to make sure they are only selecting material that is truly needed for the case, while ensuring everything the Physician may need during a case will be present.

An analysis must also be conducted on material that is wasted. Waste can come in many forms, including, unused items and materials that are contaminated during the surgical case. If LINCS, or a similar technology system that can capture wasted items in an automated fashion, is not present, tracking wasted items manually with a column on the printed version of the preference card can be done. Whether done manually or electronically, the aggregate of the wasted items can then be analyzed via a root cause analysis to determine the cause of the waste. These items can then either be removed from the cards, or training can be conducted with staff to ensure that the proper techniques are in place to prevent this waste from occurring. This process will also motivate and allow staff to make a conscious effort to reduce material waste.

Preference cards which contain custom packs, trays or kits will require extra scrutiny during the analysis process, as items contained in custom packs or kits may also be duplicated as individual line items on the preference card. This causes duplicates to be issued, and potentially both of the items to be opened in advance, when only one is needed. Once the excessive, duplicate and unneeded items are removed from the cards a cross comparison can be conducted to drive further savings.

Step 4 — Create Cross Comparisons

After the rigorous excess item analysis is conducted, the next step is to conduct a peer to peer cross comparison to see if material costs can be reduced even further. The peer to peer comparison allows reviewers to compare or benchmark the base cost of the card, and to determine which cards may contain extra material. In this process, a report is generated which shows all of the preference cards for the same ICD-9 or procedure code side by side. This step allows for case standardization, or best practices, to be used among similar preference cards. This step provides insight to preference variances between Physicians performing the same procedure. After honing in on the variance of the cost of the card, one will be able to distinguish what material is driving one card higher or lower, and validate if that variance should be occurring. This may result from differing quantities of the same item, additional unique items being issued to one Physician, or perhaps a Physician having a preference for a like item with a higher cost.   Often times, preference cards are permanently changed due to cases with extenuating circumstances, even though the change was meant to be temporary. Analysis software, such as LINCS, can help identify where this has occurred.

During a cross-comparison, discussions with Physicians are vital. Not only does this give the implementation team a better understanding of the physician's surgical needs, but gives the physician a greater comfort level with the proposed change. Using data, and not emotion, to drive the discussion, the Physician may see the significant cost impact they are having on the system, and may opt to switch to a product of lower cost. This cross comparison not only can be done at the hospital level, but also at an IDN, alliance, or enterprise level.

Step 5 — Establish Visual Controls

After unnecessary items have been removed from the card, it is important to implement some sort of visual control, or visual identifier, to indicate certain handling actions that should occur to each item. Health systems often implement visual controls in surgical material handling by using what is commonly referred to as hold items, which indicates that a certain handling action occurs once these items enter the Surgical Suite. Visual controls help to identify and prevent material from being unnecessarily opened in advance. Color codes can be created for a variety of reasons, including, for items that should always be opened in advance, for items that may be indicative of a patient size, for items that are used for procedure variations where direction from the physician is needed before advancing, or for items that are mandated to be issued but are seldom used.   Preference cards should include a visual control such as a color code to easily identify hold items.

A color-coding system could be as simple as:

Always used and opened in advance	Duplicate item of different size, open on Surgeon request only	Mandatory item, open only if needed

An optimized preference card with the correct visual controls will alleviate excessive sorting and unnecessary time spent by clinical resources searching for the desired product, either in their initial setup, or during a procedure. Excessive items on case carts make it very difficult for clinical resources to find the correct product, and also can increase the overall time of the procedure.   Increasing the overall time of the procedure has many negative impacts, including scheduling issues and increased turn-around times, as well as other clinical and personnel ramifications that may emerge due to this delay. Visual controls also reduce the amount of material that may be opened in advance. Once the visual controls are in place, it is important to implement a continuous communication cycle to further refine and improve the process.

It is imperative to ensure that there are not excessive visual control items or hold items assigned to the cards. If assigned improperly, hold items or visual control items can exacerbate the amount of material waste. If items are issued to the case via the preference card, it is important to ensure that these items are not additionally being stocked in a core or holding area inside the operating room.

Step 6 — Ensure Sustainability

In order to identify and propose opportunities for continuous improvement, a mechanism for assigning actions to preference card owners should be implemented. This process identifies any unusual material issues and/or sends out messages to add or remove items. A well designed action item system can improve communication and promote actionable outcomes. The action item system can be used during a case, or at the conclusion of a case, to identify if there were any issues associated with surgical material during the case. If so, an action can be created and assigned to the correct resource to rectify the issue. This process will help different departments, such as the OR, communicate with Central Service so any issue is resolved after the first occurrence.

Another critical process to sustaining results is to implement push reports and an alert system. The importance of this is to set periodic dates for each accountable resource to update and review their assigned cards. Alerts can be set up quarterly or semi-annually, and should include an electronic message to the individual indicating that a preference card is approaching the date to be reviewed and cleansed if necessary. Alerts can also be sent indicating if a card has not had usage for a certain period of time. Action can then be taken to delete or archive this card. Reports can also be created to indicate that status of a preference card. For example, a report can be created that utilizes a visual control to help identify preference cards in need of review. Colors such as red, green, and yellow, are used to indicate the status of the card, with yellow approaching the deadline for review, and red meaning the card has exceeded the deadline for review. The next alert allows for tolerances to be set, either by card cost or usage levels, to notify if a card has exceeded the parameter pre-determined for that card. For instance, if the cost of material for a case exceeds the base cost of the card by 10%, an alert will be sent to the director of surgery, allowing the director to investigate the reason and determine if the increased cost is due to a difficult case or an un-optimized preference card. Alerts also provide managers with the ability to see what resources are staying on top of maintaining their cards by setting tolerances to the frequency for which the card is to be maintained. It is absolutely pivotal for the director or manager of the department, or even an administrator to be the champion of the preference card maintenance process. The champion must actively manage this process in order for full savings to be achieved and sustained.

Conclusion

These six steps, in conjunction with having the correct tools in place to properly analyze preference card usage data, can be quite effective in promoting and sustaining the overall Physician Preference Card optimization process. The process can bring many benefits to a health system in addition to savings in material per case. These benefits can include, and are not limited, to an increased charge capture, reduction in overall transactions by reducing material issued and returned, reduced material waste, reduced labor, reduced re-sterilization and re-processing, reduced inventory, increased inventory accuracy, reduced number of purchase orders, reduced acquisition cost, improved replenishment methodology, decreased set-up time, reduced surgical suite turnaround time, increased clinician time with patients, and most importantly, a significant improvement in employee satisfaction and morale.

The Author

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