

Dr. X Septoplasty Case Audit

Prepared for:

XYZ Ambulatory Care Center

Prepared by:

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Definitions:

- Non Compliance (NC):*** Any observed deviation in policy or standard procedure, which adversely impacts any element of the surgical procedure. For the purpose of this audit all observed non compliances require corrective action. Non compliances are indicated by red font in the audit category tables contained in this report.
- Unneeded Items:*** Any surgical supply, instrument, equipment or instruction that is specified as mandatory for a case but revealed by audit findings to be unneeded. Unneeded items are one of the key quantifiable impact measures utilized to calculate real & potential cost savings opportunities.
- Missing or Inaccurate Items:*** Any surgical supply, instrument, equipment or instruction that audit findings determine to be essential for a case but are observed to be missing or inaccurately represented. Missing items are one of the key quantifiable impact measures utilized to calculate real & potential cost savings opportunities.
- Risk Level:*** This term refers to the likelihood of potential loss occurring based on the following levels: Low (< than 10%), Medium (10% - 25%), High (>25%)
- Real Monetary Savings:*** Refers to any opened/used item or instruction with assigned cost that has been determined to be unneeded resulting in waste and creating real monetary savings.
- Potential Monetary Savings:*** Refers to any hold item or instruction with assigned cost that has been determined to be unneeded for the case and is at risk of being opened/used resulting in potential waste and creating potential monetary savings.
- Surgeon's Preference Card:*** The surgeon's preference card is the controlling procedural document containing all pertinent and available information for a given surgical procedure. The surgeon's preference card is the sole document utilized to establish the baseline surgical profile for this audit.

For the purpose of confidentiality, this case audit withholds the identities of the participating physician and facility. This Septoplasty case audit was conducted over a five day period and completed in May, 2009.

Audit Scope:

This surgical case audit has been conducted by First Cut Medical Productions, LLC on behalf of XYZ Ambulatory Care Center. This audit, and its findings, applies only to the Septoplasty Surgical Procedure as performed by practicing physician Dr. X. All information utilized to establish a baseline for audit comparisons has been provided by XYZ Ambulatory Care Center and is contained on Dr. X's Septoplasty preference card. No other sources have been provided or utilized in establishing the baseline surgical profile. All audit comparisons and findings are based on real time, first-hand observation of the procedure as it was conducted.

Core audit impact areas are concentrated on the following:

1. Unneeded supplies, instruments, equipment or instructions that create waste, misallocate resources and/or adversely impact the case. Key measurables include real and potential lost revenue and time as indicated in audit findings.
2. Missing or inaccurate supplies, instruments, equipment, surgeons preferences or other special instructions that disrupt the flow of the procedure, elevate patient risk, reduce favorable outcomes, prolong operating room time, increase anesthesia times, and misallocate resources as indicated in audit findings.

The following surgical elements provide the full scope of audit activities conducted for Dr. X's Septoplasty Procedure by First Cut Medical Productions.

- The Case Log
- Surgeon's Preferences & Special Instructions
- Instrumentation & Order of Use
- Surgical Site Preparation
- General Supplies
- Scheduled Equipment
- Instruments & Sets
- Medications
- Patient Positioning
- Room Set-up/Layout
- Sutures
- Dressings
- Drapes & Packs

I. Audit Findings – Unneeded Items

Twenty six (26) non compliances (NC) pertaining to items listed as mandatory but not needed, have been cited for this case. These items are found within the audit categories of surgeon's preferences & special instructions, instrumentation & order of use, general surgical supplies, instruments & sets, sutures, dressings and drapes & packs. All non compliances and their appropriate corrections are listed in the corresponding audit categories.

Note, all non compliances in Section I are listed as mandatory for this case but audit findings reveal they are not needed and preference cards should be amended accordingly to ensure compliance.

Section B, Instrumentation & Order of Use: Non Compliances (NC) & Corrections

1. **NC:** Mosquitos **Correction:** Only 1 mosquito is needed for this case.

Section C, Surgeons Preferences & Special Instructions: Non Compliances (NC) & Corrections

2. **NC:** Instructions for cautery **Correction:** Extended tip cautery instruction is applicable to a tonsillectomy procedure not this Septoplasty procedure.
3. **NC:** Draping instructions **Correction:** Instructions referring to "2 towels to make triangle around head, towel clips, and steri-strips on eyes" are not needed.
4. **NC:** Splinting instructions **Correction:** These instructions reference KTP laser which is no longer used by Dr. X for this procedure.

Section E, General Supplies: Non Compliances (NC) & Corrections

5. **NC:** 27 gauge needle **Correction:** A 25 gauge needle is used for this case.
6. **NC:** 0.9% 1000 ml saline IV solution **Correction:** This item is not used for Septoplasty. It is used for Sinus Endoscopy.
7. **NC:** Head positioner **Correction:** Only one head positioner is needed for this case.
8. **NC:** 30 gauge needle **Correction:** A 25 gauge needle is used for this case.
9. **NC:** Laser fiber **Correction:** Dr. X no longer uses KTP laser for this case.

Section G, Instruments & Sets: Non Compliances & Corrections

10. **NC:** Curved Iris Scissor **Correction:** Dr. X uses Joseph Scissors for this case; Iris Scissors are too small to be used here.

11. **NC:** Forceps bayonet oral (Kumar) **Correction:** This item has been misnamed; the intent of the request is uncertain.
12. **NC:** Nasal speculum medium **Correction:** Since this instrument is found in the nose tray opening it separately is a duplication – only one is needed for this case.
13. **NC:** Nasal speculum medium **Correction:** Since this instrument is found in the nose tray opening it separately is a duplication – only one is needed for this case.
14. **NC:** Laser KTP (4-piece) **Correction:** These four pieces are used with the KTP laser fiber which is no longer used for this case.
15. **NC:** Laser suction (3-piece) **Correction:** These three pieces are used with the KTP laser fiber which is no longer used for this case.
16. **NC:** Laser/stripper/cutter/cleaver **Correction:** This item is used with the KTP laser fiber which is no longer used for this case.
17. **NC:** Adson Brown forceps **Correction:** Dr. X uses the Single Toothed Adson for this case.
18. **NC:** Neuro Plain forceps **Correction:** This item is not used on this case.
19. **NC:** Polyp Snare **Correction:** This item is not used on this case.
20. **NC:** KTP Laser **Correction:** This item is no longer used on this case.
21. **NC:** Sphenoethmoid tray **Correction:** This tray is used on Sinus Endoscopy cases.

Section K, Sutures: Non Compliances & Corrections

22. **NC:** Chromic Gut 4-0 on a P-13 needle **Correction:** Chromic gut 4-0 on a P-12 needle is used in this case.

Section L, Dressings: Non Compliances & Corrections

23. **NC:** Eye pad straight oval x 2 **Correction:** This item was formerly used to protect eyes from KTP laser which is no longer used making this item obsolete.
24. **NC:** Steri-strips ½ inch **Correction:** This item is no longer used for this case and has been changed to 1 inch plastic tape.

Section M, Drapes & Packs: Non Compliances & Corrections

25. **NC:** Drape Surgical Instrument Pouch **Correction:** Minimal tubings on field make this item unnecessary.
26. **NC:** Drape ½ sheet **Correction:** Bar sheet that comes in ENT pack is used in place of the ½ sheet when making head drape.

Summary Observations

- Unneeded instruments, supplies, equipment and/or instructions create a cluttered work environment and represent a misallocation of valuable time and resources for the technician, RN and SPD. For this case it is estimated that an additional forty (40) minutes (post op) is allocated for re-sterilization (SPD) and re-shelving (Technician & RN) these unneeded supplies and instruments. The financial burden for this *extra time is estimated to be \$44.00*.
- In addition, instruments listed as mandatory for this procedure but not actually needed, will be unavailable for other procedures. This creates potential backlogs in both SPD and case scheduling leading to less available OR time and loss of revenue.
- Inaccurate accounting of surgical supplies and instruments on a case by case basis also negatively impacts inventory levels by requiring excess inventory. The financial impact of carrying and using these unneeded supplies and instruments translates into the *potential savings of \$268.78* in terms of both real and potential savings for this case (see attached audit cost allocation tables). Real monetary savings is defined as items that are opened or used unnecessarily resulting in a total loss. Potential monetary savings is defined as supplies or instruments listed as hold items on the surgical preference card but are at risk of being opened and if so will be wasted. Again, these are items that are not needed and thus should not be included on the surgeon's preference card.

II. Audit Findings – Missing or Inaccurate Items & Instructions

Four (4) non compliances consisting of instrumentation & order of use, surgeon's preferences & special instructions, patient positioning and room layout instructions are missing or inaccurately represented in this case (see audit category tables). **Note, all non compliances in Section II are items that through audit observation and analysis have been determined to be necessary for this case but are missing or inaccurately represented. Preference cards should be amended accordingly.**

Section B, Instrumentation & Order of Use: Non Compliances & Corrections

1. **NC:** Freer Elevator **Correction:** This item is needed but not listed.

Section C, Surgeon's Preferences & Special Instructions: Non Compliances & Corrections

2. **NC:** Surgeon's second pair of gloves used on prep are not present. This creates a disruption in the flow of the surgery due to circulator needing to leave the OR to obtain missing gloves. **Correction:** Insuring the presence of needed supplies will alleviate surgical disruptions and allow circulator to remain in the operating room.

Section I, Patient Positioning: Non Compliances & Corrections

3. **NC:** Positioning instruction **Correction:** This instruction should be moved to the patient positioning section on the surgeon's preference card from the surgeon's preference & special instructions section as it could lead to positioning confusion.

Section J, Room Layout: Non Compliances & Corrections

4. **NC:** Instruction on cautery console placement is missing. **Correction:** If cautery is used, the console should be placed at foot of bed for the sake of cord management. Incorrect placement of the cautery console would elevate difficulty level intra-op because bovie and suction cords, if not properly placed, become easily tangled on the sterile field making access and use difficult. This missing instruction has the potential to greatly interrupt the flow of this procedure creating undue stress and adding additional OR time.

Summary Observations

- Missing supplies, instruments, equipment and/or special instructions increase patient risk, decrease operating room efficiency and prolong operating room time. Due to these missing items and instructions, coupled with all of the unneeded items, we project that 5-10 minutes of operating room time could be saved by correcting all of the non conformances cited in this case. If then, 5-10 minutes of operating room time are saved, the same amount of time would be saved in terms of prolonged anesthesia and recovery time.
- The Case Log lists this Septoplasty case as a two (2) case procedure (Septoplasty & Turbinate Reduction with KTP Laser). It is our recommendation that this case be listed as a stand-alone procedure with its own preference card as Dr. X no longer uses the KTP laser. While not adversely impacting this case, double listing cases should be monitored as it could create the condition of inaccurate case time resulting in lost revenue.

Non Compliance Impacts:

In summary, thirty (30) total non compliances were cited for this case. The following table represents the tangible cost savings opportunities in terms of both dollars and time (both real & potential) as identified through this audit case analysis.

Table 1. Non Compliance Impacts

Audit Element	Impact Factor	Time Value (minutes)	Real Savings	Potential Savings	Potential Savings Risk Factor (H, M, L)	Total Potential & Real Savings	Annual Real & Potential Savings (x 30 cases)
All Unneeded Supplies & Instruments	Excess re-sterilizing (SPD) & re-shelving time (RN, Tech) post op.	40	\$44.00	---	---	\$44.00	\$1,200.00
All Unneeded Supplies	Opened & wasted supplies	---	\$9.99	---	---	\$9.99	\$299.70
Unneeded Supplies	Wasted if opened – KTP Laser	---	---	\$195.00	H	\$195.00	\$1,365.00
Unneeded Supplies	Wasted if opened – extended tip cautery	---	---	\$11.80	M	\$11.80	\$59.00
Unneeded Supplies	Wasted if opened – chromic gut P13 needle	---	---	\$7.99	M	\$7.99	\$39.95
Missing Supplies, Missing Instructions & Unneeded Supplies	Excess OR time – Circulator leaving room to obtain missing supplies (gloves) and unnecessarily opening unneeded supplies, working in clutter	5-10	Facility to Value	Facility to Value	H	Facility to Value	Facility to Value
TOTALS		5-10 OR, 40 Post Op.	\$53.99	\$214.79	---	\$268.78	\$2963.65

Table 2. Non Compliance Category Pareto Chart

