SERIOUSLY……LET'S TALK DRAINS AT 3PM WITHOUT FALLING ASLEEP…

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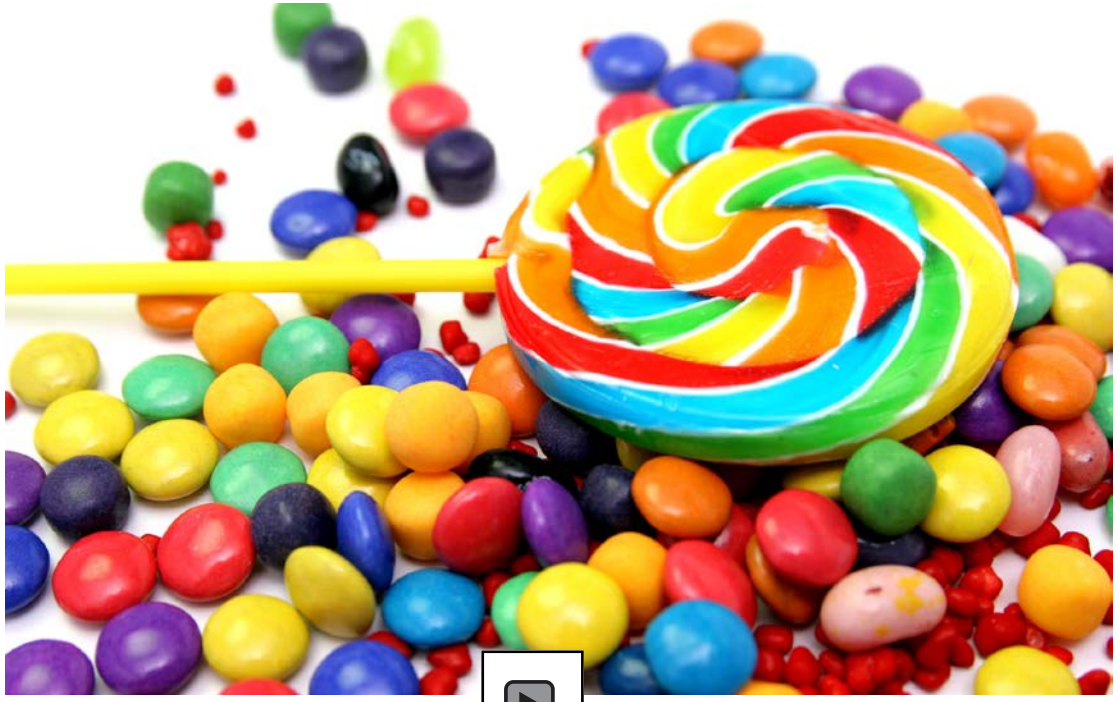


CREATING A DRAIN MANAGEMENT AND DISCHARGE TEACHING PROGRAM IN RADIOLOGY

Sarah Whitehead, BSN, RN, CRN

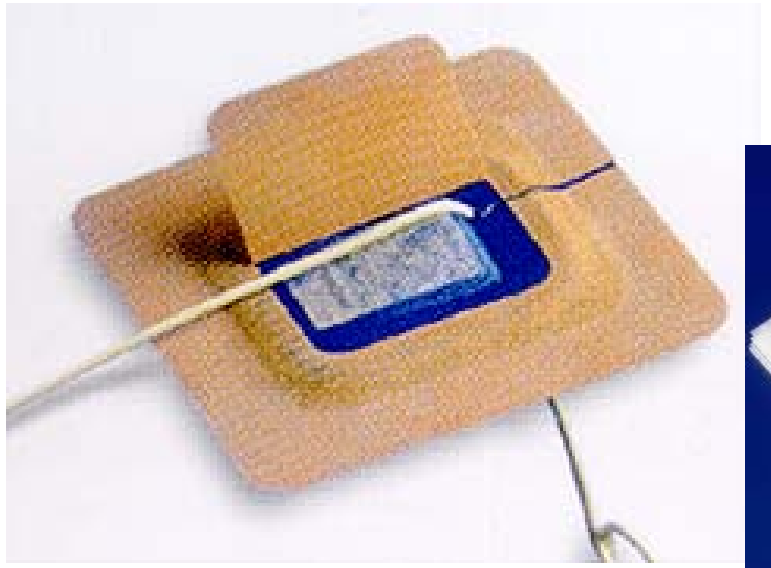
I’M HERE BY ACCIDENT, REALLY….

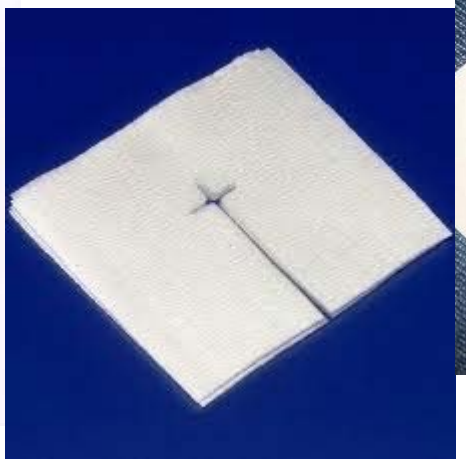
- ABOUT SARAH
- What happened?
- IF YOU WANNA SEE A NURSE GET MOTIVATION, HAVE A DOCTOR TELL HER IT CAN’T BE DONE

OVERVIEW OF COMMON DRAINS

Biliary, Cholecystostomy, Abscess, Nephrostomy

COMMON DRESSINGS USED





IMPLICATIONS FOR DRAIN PLACEMENT

Percutaneous Nephrostomy Drains: Urinary obstruction, stricture, sepsis, and urinary diversion in nonsurgical candidate. PCNs may stay in 6 months to a year, or for a lifetime if patient is not a surgical candidate.

Biliary Drains: Obstruction, especially in malignant tumors, stricture, and cholelithiasis. Other indications include Cholangitis, lowering bilirubin before surgery or chemotherapy (Robson, C., 2008). Biliary drains may stay in upwards of a year or a patient's lifetime in nonsurgical candidates.

Abscess Drains: Abscess pockets that form anywhere essentially could be indication for abscess drain placement (Shane, Belanger, Silberman, & Gaston, 2008).

. These are generally in place for 6 weeks upwards to one year in some cases. On average, placed for 3 months.

Sizes: 8-10 French is the most commonly used size.

GROWING DRAIN POPULATION

- Have seen a 375% increase in service volume in the last 5 years.
- With this increase in patient load we have experienced “growing pains”.
- In regard to drains, we had seen approximately 100 encounters in 2011 compared to 320 in 2013.
- It was during this busy time that we noticed many of our patients returning with complications (34%) before changes were made.

PROBLEMS IDENTIFIED

- Patients going home without any discharge teaching, then returning to the ER with their drain “falling out”.
- Patients going home without dressing supplies.
- The commercially used anchoring device we were previously using was not stocked on the wards, thus not being changed while the patient was on the floor.
- The same dressing was very complex.

DOCTOR PROBLEMS….(SIGH)…

- IR Doctors ordering different flushing protocols (BID/TID/QD).
- Some IR doctors ordering nothing post-procedure.
- IR Doctor orders one thing, primary team orders another (competing orders).
- Patients weren't compliant in flushing their drains or changing the dressings because there was no protocol/standards in place.
- Orders written as a free text order that didn't link to the barcode administration system.

PROBLEMS IDENTIFIED

- We encountered numerous patients returning to the ER with clogged drains, pulled drains, and dressings falling off which pulled the drain out.
- This resulted in increased hospital readmissions as well as unnecessary ER visits.
- It was determined that lack of patient education and an established standard of care was the root of the issue.

Bottom line?

Variances in practice led to poor outcomes.

FACTORS TO CONSIDER

- Drains can be long term, on average 6 months to a year, or even for a lifetime in nonsurgical candidates.
- Economic Factors: These drains are costly to upkeep and maintain, replace, and manage.
- Reducing complications and hospital readmissions vastly reduces expenditures and provides better patient outcomes.

ECONOMIC FACTORS TO CONSIDER

- The average patient that has a Biliary/Chole/PCN drain placement for a year's time will cost:
- 6000 in IR procedure costs to maintenance/routinely replace drain.
- 500.00 annually in dressing supplies.
- At CAVHS, with 200 biliary/PCN placements in 2013, that equals 1.3 Million dollars annually, before a complication/ER visit/readmission potentially occurs.


AND WHO TEXTED YOU THIS?!

ASSESSED THE SITUATION

- Did extensive literature search and found no specific irrigation/flushing/dressing guidelines on the management of drains.
- Survey/benchmarks of area hospitals and VA's in a 1000 mile radius to determine the current standards of practice and explore a current and best practice methodology.

IMPLEMENTATIONS

Summary of our interventions:

- Changed anchoring device(12.00/each) to drain sponge (.19/each)
- Wrote standard orders used on every patient with flushing recommendations that linked to the barcode administration system.
- Created a Discharge Teaching Consult.
- Gave our direct phone number to patients during discharge teaching.

DRESSING CHANGES

- It was determined by other facilities' practices that a simpler dressing provided better results.
- We are now suturing our catheters, using a standard drain sponge (.19 cents) and cloth perforated tape (.16 per change)on our dressings with much success.
- This has decreased our dressing costs annually from an estimated 441,000 to 29,000 per year.

DRESSING OPTIONS AND TIPS

- There is no foolproof way to secure catheters!
- Mesentery dressings provide optimum additional protection and allows pulling to occur at the “shark fin” rather than the catheter insertion site.
- Mark the catheter at the insertion site!
- External fixation devices:
  - More comfortable and does not harm catheter.
  - Dressings are complex.
- Sutures:
  - Pros: Secured to the skin, dressings are simple.
  - Cons: Sutures are painful, irritating at the site, and can occlude the catheter.

  - (Robson, C. 2008)


SUTURE
LIKE A BOSS

STANDING ORDERS USED ON EVERY PATIENT

- **Nephrostomy:**
- Call IR if nephrostomy drain output becomes bloody or suddenly stops.
- Change dressing with drain sponge and Medipore tape daily.
- Drain does NOT need to be routinely flushed without consulting Interventional Radiology.
- Please place IR Nursing Drain Teaching Consult prior to patient discharge from hospital so drain teaching needs are met and drain care supplies can be ordered.

STANDING ORDERS BILIARY/CHOLE

- **Biliary/Chole/Abscess:**
- Flush tube with 10ml Normal Saline BID. Do not aspirate contents into syringe.
- Change dressing daily with drain sponge and Medipore tape.
- Please place IR Drain Teaching Consult prior to discharge to ensure drain teaching needs are met.

NEPHROSTOMY STANDING ORDER

-Call Interventional Radiology (IR) if Pecutaneous Nephrostomy drain output becomes bloody or suddenly
stops. Change dressing with 4x4 and Medipore tape daily.
-Drain does NOT need to be routinely flushed without consulting Interventional Radiology
-Please place IR Nusing Drain Teaching Consult prior to patient
discharge from hospital so drain teaching needs are met and
drain care supplies can be ordered *UNSIGNED*

These are linked to the barcode medication system!

BILIARY, ABSCESS, AND CHOLE ORDERS

>> -Flush Biliary drain BID with 10cc Normal Saline. -Change dressing with 4x4 and Medipore tape daily. -Please place IR Nursing Drain Teaching Consult prior to patient discharge so drain teaching needs are met and drain care supplies can be ordered. *UNSIGNED*		
NORMAL SALINE INJ 0.9% 10 ML IRRG BID Interventional Radiology Drain Flush *UNSIGNED*		

>> -Flush Abscess drain BID with 10cc Normal Saline. -Change dressing with 4x4 and Medipore tape daily. -Please place IR Nursing Drain Teaching Consult prior to patient discharge so drain teaching needs are met and drain care supplies can be ordered. *UNSIGNED*		Cox-Ma
NORMAL SALINE INJ 0.9% 10 ML IRRG BID Interventional Radiology Drain Flush *UNSIGNED*		Cox-Ma

PATIENT EDUCATION TIPS FOR FLUSHING CATHETERS

- Catheters must be flushed to maintain patency.
- Clean port with alcohol.
- Flush 10ml preservative free normal saline into the catheter twice a day.
- In biliary and abscess catheters, a vigorous flush helps dislodge sediment from the tube or any sideholes (in biliary drains).
- Do NOT aspirate!
- No tub baths or swimming.
- Ziplock Press N Seal is amazing.
- Record outputs daily.
- Call IR if output suddenly stops, catheter is dislodged, you have sudden fever or chills, or unresolved pain.

DISCHARGE TEACHING CONSULT

RADIOLOGY CONSULTS

Template: INTERVENTIONAL RADIOLOGY NURSING DRAIN TEACHING CONSULT

Please see patient for * ☐ Biliary ☐ Nephrostomy ☐ Abscess
☐ Cholecystostomy drain discharge
teaching instructions and supplies necessary for continued drain care at home. Patient scheduled for discharge *

Select Date/Time

OK

Cancel

February 24, 2015

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	[24]	25	26	27	28

6 7 8 9 10 11 12 – 13 14 15 16

:00 :05 :10 :15 :20 :25 :30 :35 :40 :45 :50

Today

Now Midnight

USING CONSULTS IN THE ELECTRONIC HEALTH RECORD

- Utilize the EHR to your advantage!!
- IR is a consulting service, so why not ensure your discharge education needs are met by activating your own consult for nursing staff?
- This is placed by the referring provider, or attending physician.
- This is not limited to drain education. This can be used for any type of patients you see in your area.

RECORDING OUTPUTS

- One of the most important things a nurse can document is correct I/O.
- We were not getting drain outputs documented in the CP flowsheet in CPRS, so this order was added to our routine order set as well.
- We encourage any VA that is using the CP flowsheet to add a “drain” section, as we have done, to ensure that your chest tube/drain outputs are being recorded.
- This is the only way that we know that the drain is ready to be removed and gives us insight on what is going on anatomically.

STAFF EDUCATION

- Changes are simply “wishful thinking” without staff education and implementation.
- We went floor to floor, night shift and day shift, to teach nurses drain care and proper flushing protocols.
- Be a change agent who involves the staff in the process for optimum buy in!

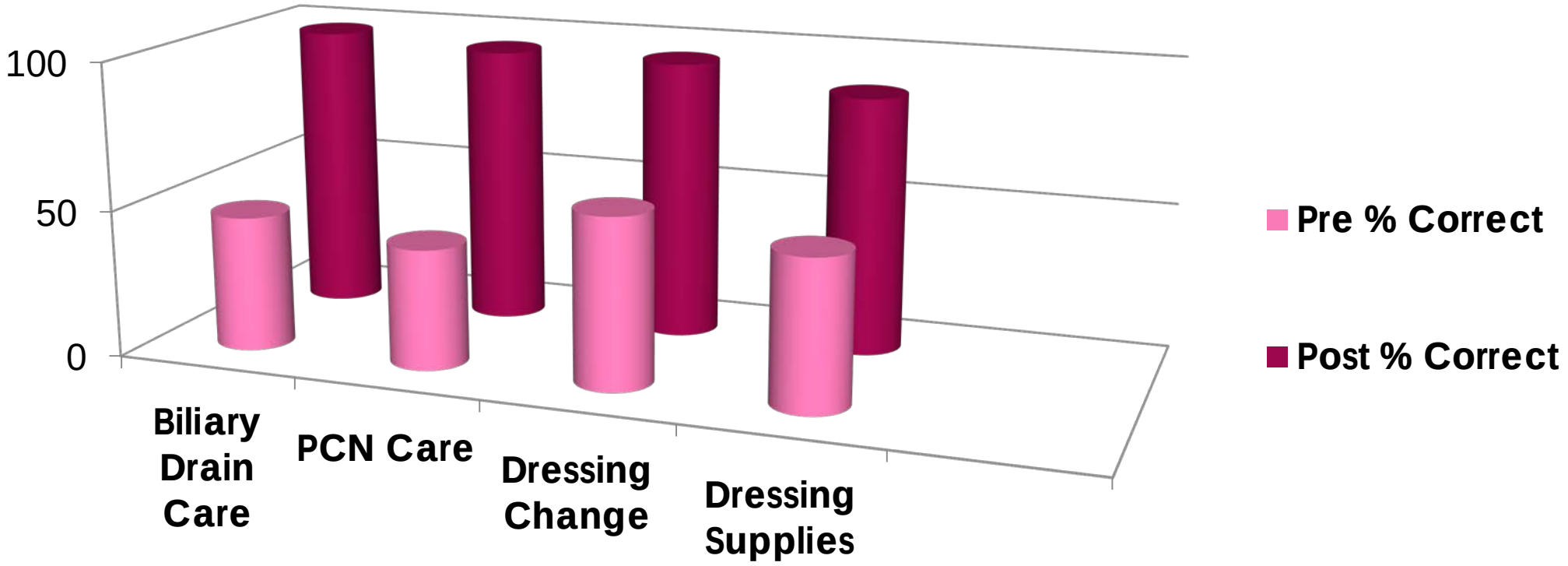
“People underestimate their capacity for change. There is never a right time to do a difficult thing.”

-John Porter

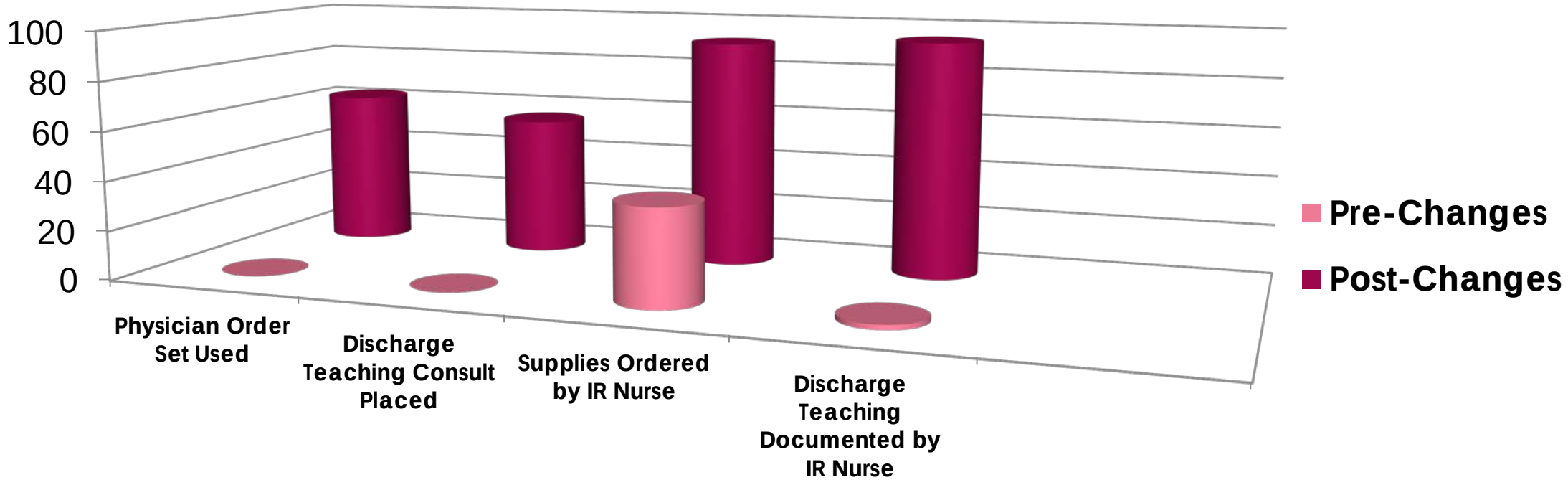
HOW TO ENSURE SUCCESS IN DRAIN MANAGEMENT?

- Standardization of care.
- Discharge teaching MUST start pre procedurally.
- Ensure access to supplies on the wards.
- Developing relationships is KEY.
- Giving contact information.
- Recording outputs.
- Staff education to the front line staff.

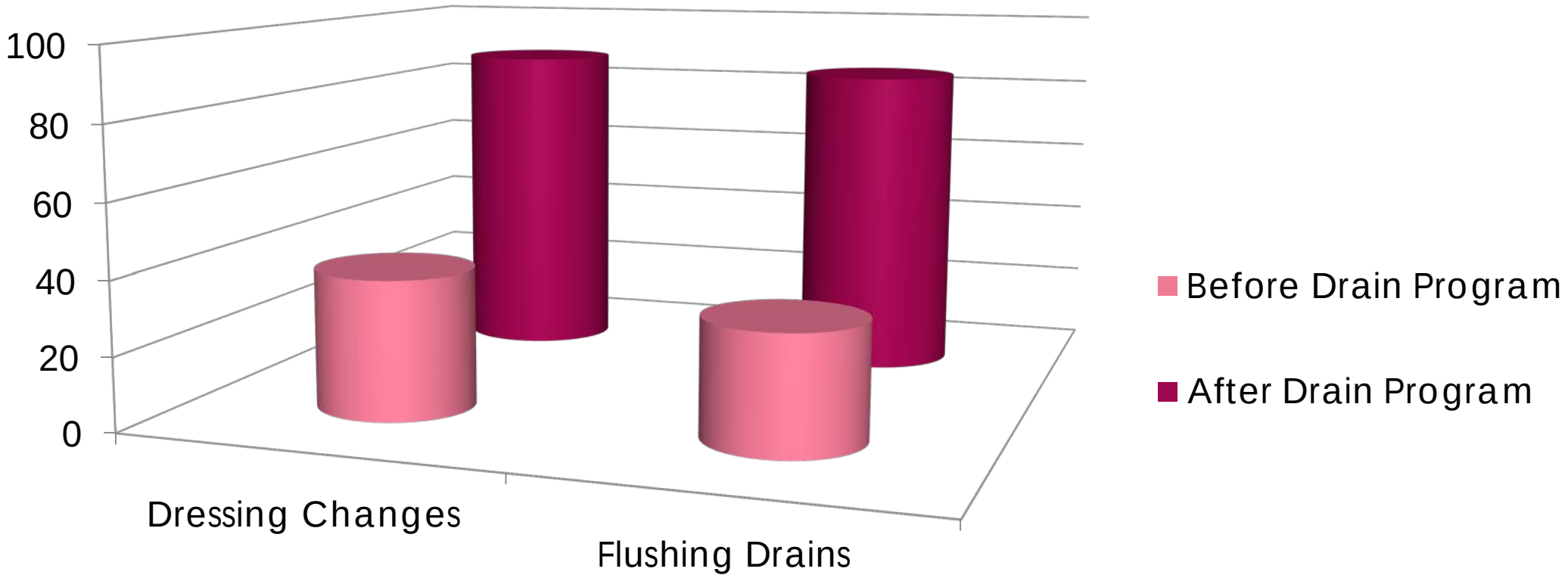
STAFF EDUCATION OUTCOMES



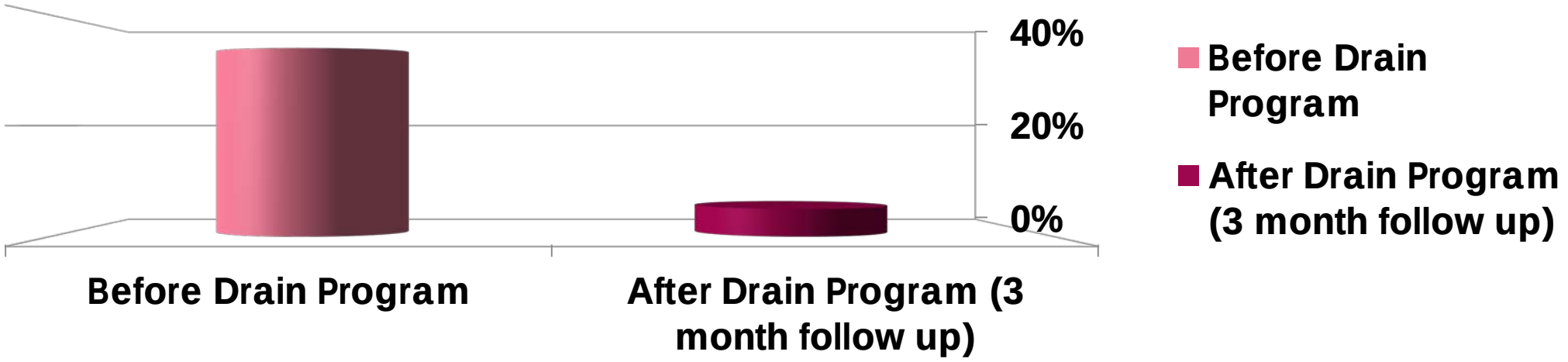
ORDER SETS/DISCHARGE TEACHING OUTCOMES 3 MONTH FOLLOW UP



PATIENT COMPLIANCE RATES 3 MONTH FOLLOW UP



PATIENT COMPLICATION RATES 3 MONTH FOLLOW UP



ROADBLOCKS

- What are some roadblocks you encounter in patient education, drain management, or starting a new drain management program?
- Lack of buy in from staff?
- Leadership support?
- Lack of time and resources?
- Patients being lost to follow up?

IR CULTURE

- Imaging/Interventional Radiology is historically a consulting service. We are consulted by a primary physician to perform a procedure, and then we “sign off”.
- It is at this point that we entrusted the primary team to resume care and assume that they knew how to care of the patient post drain placement, biopsy, etc. and follow the patient appropriately

EVOLUTION OF OUR OWN PRACTICE

- Prior to changing our practice, we would place a drain and assume that the primary team would follow them appropriately, order dressing supplies, do discharge teaching, and order follow up appointments to have the drain assessed/routinely changed by our department.
- As our department grew in leaps and bounds, we noticed this practice was no longer acceptable, as the patients were not being cared for appropriately(hence 34% complication rate).

EVALUATE YOUR OWN PRACTICE

- What dressings does your facility use?
- Do you see patients returning frequently with drain problems?
- If so, why?
- What other ways can your practice be improved?
- Do a cost analysis of the products you use.
- “Well, that’s the way we’ve always done it.”
- Evaluate your discharge teaching program.

TAKING A GLOBAL LOOK AT YOUR OWN PRACTICE

“The range of what we think and do is limited by what we fail to notice.”

SO YOU HAVE AN IDEA…..

- Thinking outside the box will not make your brains fall out.
- Sometimes things go right…..

SO YOU HAVE AN IDEA…

- And sometimes they don’t.

PERFORMANCE IMPROVEMENT

- Why?
- It’s our duty.
- If you want something done right……
- Get a nurse to do it.

QUESTIONS?

CAVHS IR TEAM

REFERENCES

- Shane, K., Belanger, J., Silberman, D., & Gaston, S. (2008). Computed Tomography. In C. Sasso, Core Curriculum for Radiologic and Imaging Nursing (2nd ed., pp. 299-342).
- Robson, C. (2008). Nonvascular Interventional Procedures Section 1: Biliary Interventions. In C. Sasso, Core Curriculum for Radiologic and Imaging Nursing (2nd ed., pp. 299-342).