Inspiring Each Other to Use Creative Approaches in Unique Situations

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Inspiring medicine. Changing lives.

Invest in Yourself

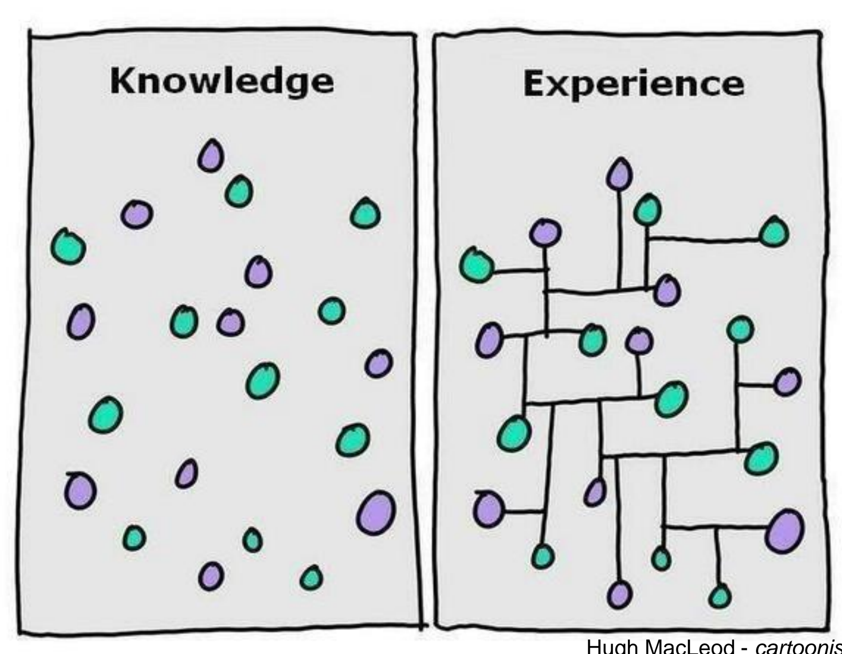
Our endoscopy staff brings extensive knowledge and experience to patient care. Many invest in themselves professionally through certification, advancement programs, continuing education and networking. Nursing's ability to adapt to their ever-changing environment requires that they continually pull from their past experiences. Creativity pulls together past experiences and desire for innovative solutions to generate positive patient outcomes.

"The strength of the team is each individual member.
The strength of each member is the team"
– Phil Jackson

We surveyed all endoscopy nurses and technicians for experience, certification and opportunities to use creativity in the work setting. Surprisingly, we discovered that we have 491 years of combined nursing experience, with 249 years in endoscopy. Our endoscopy technicians also bring 92 years of patient care experience with 64 years in endoscopy. Seven of 20 nurses in our department are Certified Gastroenterology Registered Nurses (CGRN) and two of seven endoscopy technicians have successfully completed the associate or advanced associate program through Society of Gastroenterology Nurses and Associates (SGNA). Six associates are Certified Flexible Endoscope Reprocessors.

Knowledge alone is not enough to successfully navigate complex patient healthcare needs. We need to connect the dots of knowledge with our experiences to promote creative thinking. On a daily basis, nurses encounter multiple opportunities in which they undertake creative risk taking to bridge the gap between knowledge and experience.

Creativity has no boundaries or restrictions. "Creative thinking encompasses open-mindedness, flexibility and adaptability and is essential to critical thinking"[3]



Hugh MacLeod - *cartoonist*

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Getting Rid of the Box

We are often encouraged to think "outside the box". What about throwing the box away? In healthcare, we frequently use our creativity to achieve excellent patient care. If asked, most of us would not identify ourselves as creative people – we just do what needs to be done.

Creative Opportunity # 1

A 66 year old female, post gastric band placement done 11/16/2012 with hiatal hernia repair, presents to her bariatric surgeon with abdominal pain and dysphagia.

Endoscopic evaluation reveals a gastric band completely eroded into her stomach (Figure 1). Patient needed gastric band removal prior to pursing gastric bypass as a means to continue weight loss. Patient currently weighs 204 pounds and is 5 foot 3 inches tall with a Body Mass Index of 36.1. Per conversation, patient verbalizes anxiety related to pending procedures.

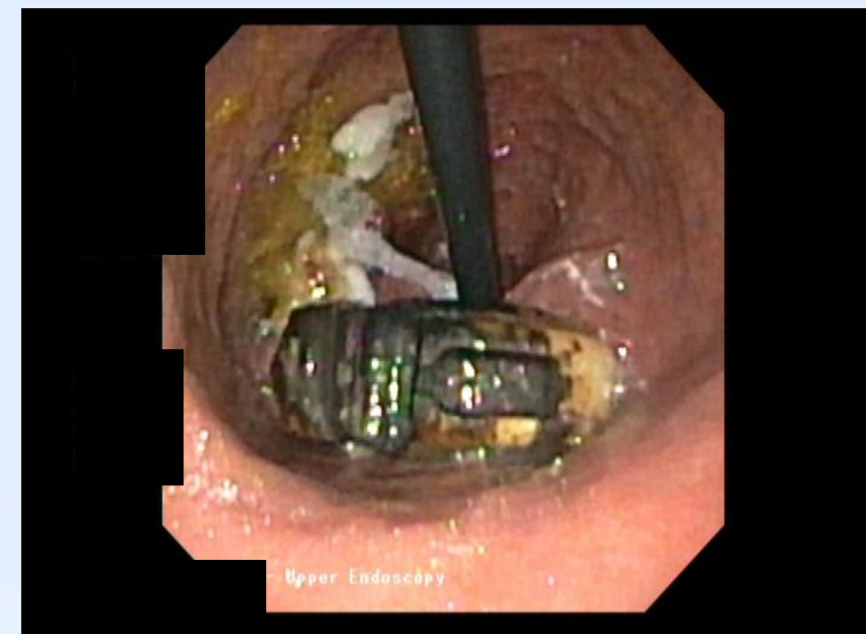


Figure 1

Our bariatric surgeon hoped to perform gastric band removal endoscopically, a procedure we have never done at our facility, and consulted gastroenterology on possible options. The gastroenterologist collaborated with our nursing staff as to available solutions for gastric band removal. Our GI bariatric resource nurse took on the role of point person. As a bariatric resource, his role was charged with exploring endoscopic alternatives for gastric band removal.

Extraction of the gastric band requires it to be cut, to allow elongation of the gastric band for safe passage through the esophagus. An Inventory of currently stocked equipment in our department did not produce any immediate solutions. It was suggested that endoscopic scissors be used, but upon trial this was unsuccessful. Further discussion amongst staff lead to exploring the practical use of endoscopic retrograde cholangiopancreatography (ERCP) equipment as a means to cut through the gastric band.

A review of current literature confirmed successful removal of gastric band could be accomplished by using an ERCP guidewire and mechanical lithotripter.[1] Using a double channel endoscope, a 0.035 guidewire was passed through one channel and looped about the gastric band (Figure 2). A grasping forceps was then passed through the second channel and used to grasp the end of the guidewire, pulling it out of the patient's mouth. The guidewire ends were fed through the cable of the mechanical lithotripter and positioned into the crank of the device. The ratcheting mechanism of the device allowed for gradual tightening of the wire subsequently cutting the gastric band. The elongated band was then safely removed with a snare.

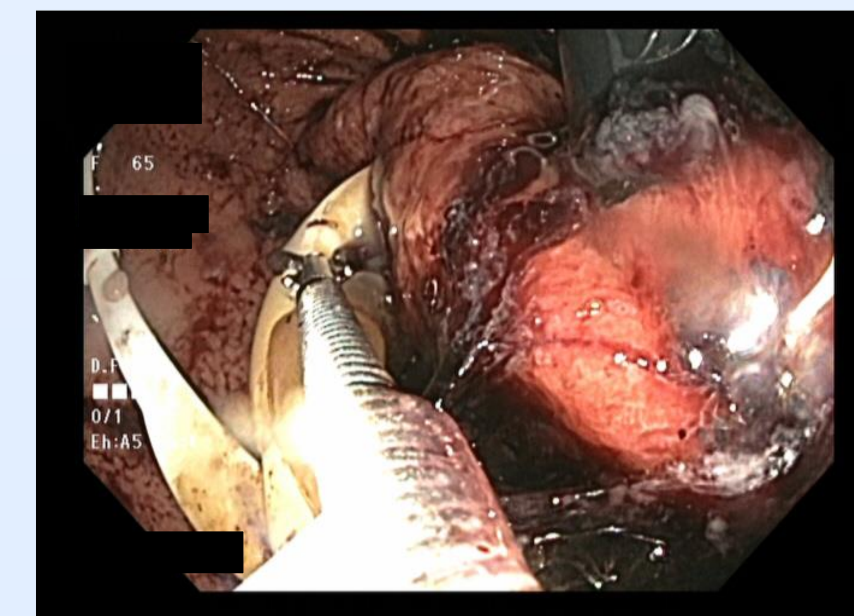


Figure 2

Patient was able to be discharged the following day, having been saved from an open surgical procedure requiring a lengthy hospitalization. Creative solutions to complex obstacles can be achieved when team members work in an environment that promotes mutual respect and trust.

Creative Opportunity #2

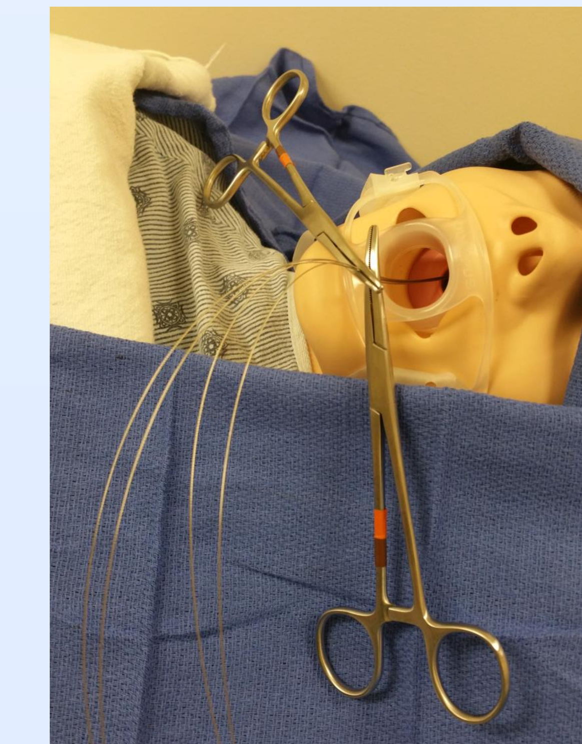
A 91 year old female with history of stroke and atrial fibrillation presents to her gastroenterologist's office pain-free with elevated liver function test. A recent ultrasound demonstrated common bile duct stones and dilated bile duct of 15mm. Patient is scheduled for an endoscopic retrograde cholangiopancreatography (ERCP) with monitored anesthesia care (MAC).

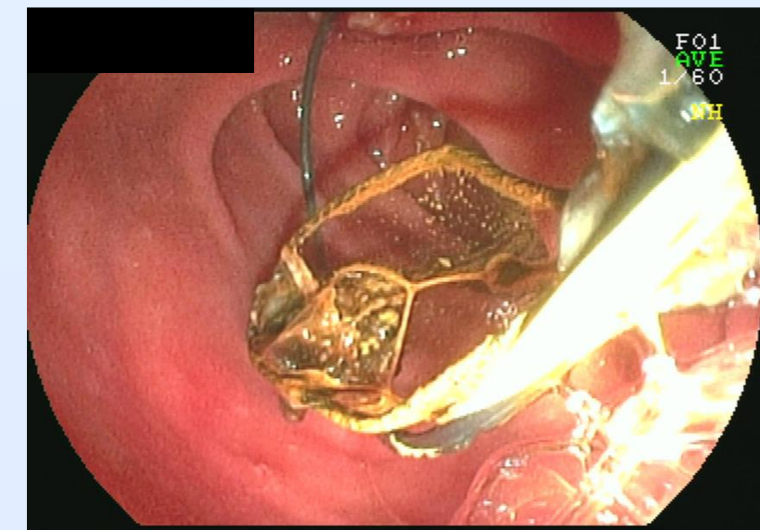
Cholangiogram demonstrated multiple $1^{+/-}$ cm stones in the common hepatic duct. Lithotripsy with a wire-guided retrieval basket was performed with numerous stones crushed and extracted. While performing manual lithotripsy, the wire broke within it's sheath preventing the stone from being crushed. "The impaction or wire fracture of basket is an uncommon but potentially highly dangerous complication during endoscopic retrograde cholangiopancreatography and stone extraction."[5]

The plastic sheath covering the basket wires were cut to expose the wires of the basket. Nursing suggested using hemostats placed to secure the wires in place externally (Figure 3). Use of an emergency mechanical lithotriptor was attempted, but the free wires fractured with this attempt.

A second basket was placed over the entrapped basket and subsequently used to crush the stones and remove the original basket. Due to the unexpected complication, no further lithotripsy was performed. A 10cm by 7cm biliary stent was placed with adequate drainage. This technique saved the patient from an open surgical procedure and lengthy hospital stay.

Post-procedure, the patient did experience left sided abdominal pain 4/10 and nausea. She was admitted overnight as an observation patient and discharged on the following day.





Conclusion

Routinely, nurses are being asked to solve a multitude of complex problems. These can be familiar issues or something completely new that will challenge the nurse. When the team combines their experience and knowledge, they can reach an effective solution.

An atmosphere that fosters creative thinking and an open exchange of ideas, promotes a safe and trusting environment to engage in "out of the box" thinking. These strong building blocks provide the foundation for associates to achieve confidence in their own professional creative abilities. As a result, the team is empowered to work together, uncovering their talents while providing expert patient care.

References

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1. Bertin, P., & Costa, M. (2012). Endoscopic removal of eroded gastric band using standard endoscopy equipment. *Bariatric Times, 9*(10), 20-22.
2. Chan, C., Donnellan, F., Chan, G., & Byrne, M. (2012). A novel two-step approach for retrieval of an impacted biliary extraction basket. *Case Reports in Gastrointestinal Medicine, 2012*.
3. Hall, C. (n.d.). *Transform working definition of creative thinking*. Retrieved January 31, 2017, from http://transformnursing.eu
4. Shade, M., Torres-Barrera, G., Arredondo, J., & Rumbaut-Diaz, R. (2013). Hybrid technique for removal of eroded adjustable gastric band. *Journal of the Society of Laparoendoscopic Surgeons, 17*, 338-341.
5. Yilmaz, S., Ersen, O., Ozkececi, T., Turel, K., Kokulu, S., Kacar, E.,...Arikan, Y. (2015). Results of the open surgery after endoscopic basket impaction during ERCP procedure. *World Journal of Gastroenterology Surgery, 7*(2), 15-20.