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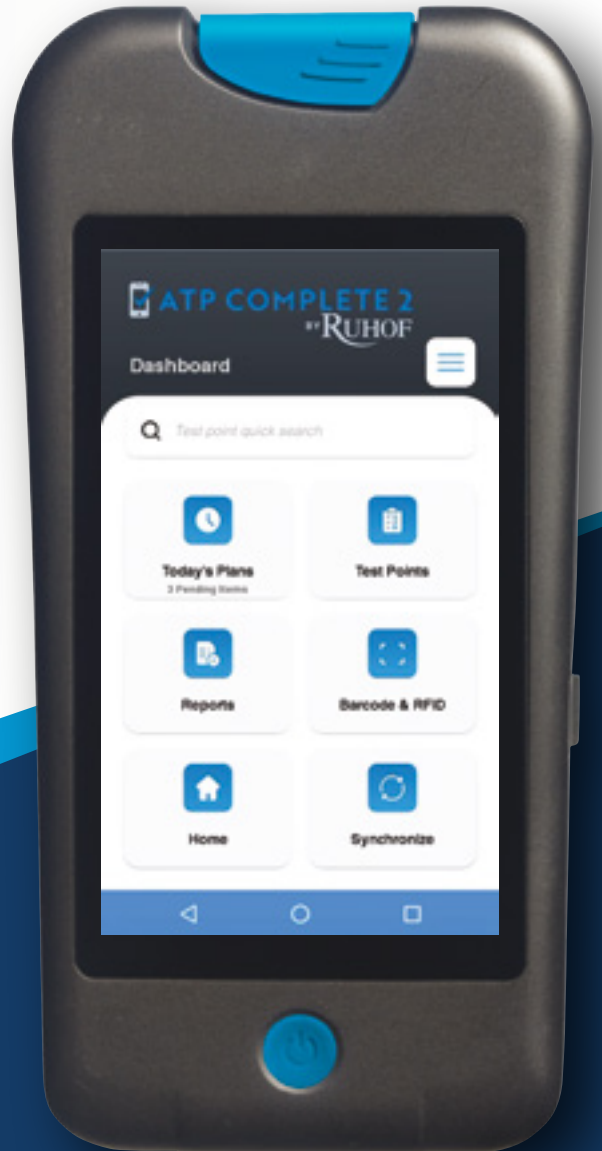
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PUBLISHER

Bill Eikost • Advertising@EndoProMag.com

EDITOR IN CHIEF

Michelle Beaver • Michelle.Beaver@EndoProMag.com

SENIOR EDITOR

Lisa Hewitt, MA

ART DIRECTOR

Jason Garcia

REPRINTS/ SUBSCRIPTIONS/

CUSTOMER SERVICE

(877) 519-9592 x109



PRESIDENT

Bill Eikost • Bill.Eikost@7ToesMedia.com

GENERAL COUNSEL

Robert Stewart

ACCOUNTANT

Adam T. Cary, CPA PC

PO Box 10547, Glendale, AZ 85318-0547

Tel. (877) 519-9592 • Fax (877) 463-6097

eMail: Info@EndoProMag.com

Website: www.EndoProMag.com

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The Science of Happiness

Does Wealth Affect Our Well-Being?



In the beginning of a new year, many of us ponder what's most important and how we want to focus our energy. With that theme in mind, this letter explores the science of happiness. Specifically, how important is money to happiness?

Money accounts for just 2–4% of our happiness, according to activist and former Vassar College instructor Jeff Golden.

What about the remaining 96–98%?

Golden shares his answers to that question in his new book, “Reclaiming the Sacred: Healing Our Relationships with Ourselves and the World.” The book received the 2023 Nautilus Book Awards Grand Prize, putting Golden in the company of the Dalai Lama, Barbara Kingsolver and Deepak Chopra.

“Reclaiming the Sacred” offers scientific revelations regarding the things that nourish the human spirit and the things that don't—most notably, money and possessions. There's an intimate relationship between material wealth and poverty of spirit, Golden posits.

“As we've surrounded ourselves with more and more possessions, we've grown farther from the sacredness of the world, and the sacredness of ourselves,” Golden writes. “As we've elevated economic growth and consumption to the highest measures of success and purpose, we've closed ourselves off from so much of the joy and wonder that are inherent in us and the world.”

Golden has been teaching and writing about these topics for three decades, most recently at Vassar College. He was a Fulbright Scholar in sustainable development and a recipient of the State Department's Millennium International Volunteer Award. Golden is also a prison-reform and animal-rights

activist, and has led several nonprofits promoting social justice, sustainability and international education.

Full disclosure: Jeff Golden is my friend. The purpose of this letter is to invite each of us to examine our paychecks and lives a little differently, not to make the author money (believe me, very few authors get rich, or anything even close to it). After all, the proceeds don't even go to the author; they're being donated to nonprofits doing work related to Golden's premise. You can learn more at <https://reclaimingthesacred.net/>, or purchase the book on Amazon. Whether you buy the book or not, and whether you make the salary you wish for or not, I hope you take satisfaction in the service you provide every day.

Do you take satisfaction in those services? Some other questions (posed in the book):

- What is the optimal amount of money and possessions for a person to be happy?
- Does having kids make people happy? Getting married? Having sex? Working?
- What kinds of changes will people have to make as individuals and as a society as a result of global warming? How will those changes allow people to live better lives?
- What does the economic system get wrong when it comes to what really matters, and how should progress be measured?

“We have an opportunity to reweave ourselves back into the human community and the family of all living beings, the family of the land and trees, the otters and grasses—to live with them in relationships of respect and wonder,” Golden said. “We have an opportunity to reclaim ourselves and this world as sacred.”

Is your work in healthcare fulfilling you in these deep ways? Or is the stress and disfunction of the industry robbing you of happiness? These are complex issues. Either way, I hope we all use 2024 to reclaim the sacred in our own lives. Happy new year!

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Healthcare Sterile Processing Association

Supporting Sterile-Processing Professionals

By Julie E. Williamson



For more than 60 years, the Healthcare Sterile Processing Association (HSPA, formerly known as IAHCMM) has provided sterile-processing professionals with certification and educational opportunities, advocacy and support. Today, HSPA serves more than 48,000 members and certification holders and strives to embrace new and unique opportunities to increase support, professionalism and recognition.

In 2023, HSPA and its philanthropic 510(c)(3) organization (the HSPA Foundation) saw numerous exciting developments come to fruition. These developments led to broader representation among the international community, innovative scientific research, new resource development, scholarships, funded volunteer opportunities, and more. HSPA's 2023 conference in Nashville was excellent for educational and networking opportunities and included a mentoring program that paired new attendees with seasoned sterile-processing professionals to answer questions, enhance conference experience and assist with professional pursuits.

This year, the HSPA Foundation and Ofstead & Associates partnered for first-ever research on sterile-processing training. The study was published in the American Journal of Infection Control and is helping reshape the way education and training are provided. These changes enhance knowledge retention and skill mastery. The 2024 HSPA conference in Las Vegas will provide a pre-conference session that will teach participants some of the study's novel training techniques.

Further, HSPA clinical educator Susan Klacik, BS, CRCST, CIS, CHL, ACE, co-authored a study with Johnson & Johnson's Terra Kremer, BS, director of microbiological quality, and Christopher Carfaro, BS, supervisor 2, research and development. The study explored how time and other factors affect soil drying on medical devices. HSPA and the HSPA Foundation are committed to embracing more research opportunities in the future to foster positive change for the profession, all in the name of quality and safety.

This year, HSPA released the new edition of the Sterile Processing Technical Manual and recently updated the Sterile Processing Leadership Manual. Additionally, the association will soon release its introductory "skills builder guide."

In September, HSPA's board of directors and key staff members met in Chicago for a comprehensive strategic-planning session. Those plans for 2024 are already well underway. In the months ahead, we will share more about the outcomes of the session and exciting details about what is on the horizon for HSPA and its membership.

With our focus on education and certification, the HSPA Foundation was pleased to provide scholarships for recipients to obtain HSPA certifications or attend our 2023 conference. The board also awarded educational scholarships for three individuals seeking undergraduate degrees. The foundation welcomed a partnership with Mercy Ships in 2023 that allowed a qualified HSPA member to serve on a mission to Africa as a sterile-processing technician aboard the world's largest civilian hospital vessel. The foundation provided a grant to Mercy Ships (up to \$10,000) to cover the volunteer's room and board, travel and other expenses and help offset their salary during the mission. The first mission was a resounding success! HSPA and the foundation are pleased to be able to give back to the community and our membership in such a positive and powerful way.

Positive developments were also seen on the advocacy front. HSPA is advocating for a change in Congress that would change how sterile-processing professionals in Veterans Affairs facilities can be compensated, a move that would help ensure pay rates are competitive with other professionals working in private-sector healthcare in the same labor-market areas. For Sterile Processing Week, our email campaign led to 693 HSPA members and certification holders sending letters to their elected officials to educate them about the dedicated week, the profession and its critical role in patient safety and infection prevention. Cumulatively, this effort resulted in 5,302 letters being sent to 1,934 elected officials—a move that greatly helps underscore the profession's importance and promote great recognition among elected officials and the public.

HSPA was well-represented internationally in 2023. In October, HSPA leadership presented at the World Federation for Hospital Sterilisation Sciences Congress in Brussels, Belgium. The federation dedicates itself to worldwide harmonization of sterilization departments and decontamination practices. It's an honor to participate in this annual event, share our expertise, and promote safety and quality in medical-device

Continues on p. 34



LEARN AND NETWORK AT THE **2024 HSPA CONFERENCE**

Healthcare Sterile Processing Association (HSPA) invites you to fabulous Las Vegas to attend our 2024 Conference April 20–23. This is the leading Sterile Processing event of the year, offering the broadest range of educational and networking opportunities to sharpen your professional skills and share ideas and best practices with peers and industry experts.

Visit www.myhspa.org/2024conference and register today!



Point-of-Use Treatment for Endoscopes How Important Is It?

By Nancy Chobin, RN, AAS, ACSP, CSPM, CFER

Point-of-use (POU) treatment is the first step in endoscope reprocessing and is performed by nurses, endoscopy technicians, or other designated personnel at the point of use, immediately following the patient procedure. Point-of-use treatment should begin as soon as possible after the physician removes the endoscope from the patient and before the endoscope is detached from the light source or video processor. This process helps prevent buildup of bioburden, formation of biofilm, and drying of secretions. It is essential that personnel performing the POU treatment carefully follow the manufacturer's instructions for use (IFUs) for the endoscope and pretreatment cleaning solution. This includes any materials, chemicals and methods recommended.

When performing POU treatment, personnel must wear appropriate PPE. A single-use, non-linting cloth or a sponge should be soaked in a freshly prepared cleaning solution and used to wipe the endoscope from the control section to the insertion tube and the distal end. There are a variety of POU cleaning products currently available, including pre-measured, diluted detergent in single-use packets.

During the POU treatment process, the endoscope controls should be positioned in the free and unlocked position. Unless otherwise directed by the endoscope manufacturer's IFU, the distal end of the endoscope should be placed in the water or detergent solution and all suction/biopsy channels should be flushed according to the endoscope manufacturer's IFU, using the prescribed volume of water or detergent solution. This helps remove gross debris and verify that the channels are not obstructed. Then the water or detergent solution should be alternately suctioned with air through the biopsy/suction channel until the solution is visibly clean. Solution should be flushed or aspirated through any additional channels, including (if applicable) the air/water, elevator wire, and auxiliary water channels, according to the endoscope manufacturer's IFU.

After all channels are flushed and aspirated and all external surfaces of the endoscope are wiped, the endoscope should be disconnected from the light source and suction pump. For a video endoscope, the protective video cap should be attached. The same water-resistant cap should be used throughout the cleaning and disinfection process.

While this is another step for processing endoscopes, it is an important one and should not be overlooked. When soil is allowed to dry, it becomes more difficult to remove. Considering the numerous small channels in flexible and semi-rigid scopes, POU treatment can have a dramatic effect on

cleaning the endoscope. "Perform precleaning/point-of-use treatment immediately after a procedure is completed, before bioburden has an opportunity to dry, and before comprehensive decontamination."

Depending on the design of the endoscope, the manufacturer's instructions for use (IFU) can vary with the make and model of endoscope. Compliance with the specific IFU is essential to enhance the cleaning process.

Just as important as POU treatment is the quick transfer of the treated endoscope to the scope-processing area. There is a critical time frame between the time the POU treatment is performed and when cleaning is initiated. The scope manufacturer should provide this information. However, if there is a delay between the POU treatment and the cleaning as recommended by the scope manufacturer, then the delayed-processing protocols recommended by the endoscope manufacturer should be followed.

To ensure compliance, documentation should be sent with the POU-treated endoscope indicating the time POU treatment was performed so the processing technician can determine if delayed-processing protocols need to be implemented.

Personnel processing flexible and semi-rigid endoscopes have a moral and ethical responsibility to ensure all steps are taken to provide a safe and effective device to the end user. Failure to perform just one step, and perform it correctly, can have severe consequences. Sometimes we catch a mistake and have a chance to correct it. However, mistakes are often overlooked and that is when patient care can suffer.

Nancy Chobin, RN, AAS, ACSP, CSPM, CFER, is the president and CEO of Sterile Processing University, LLC, of Lebanon, New Jersey. Her company was founded in 1996 and provides SPD and GI consultations, competency assessments, design of sterile processing areas (in hospitals, surgery centers and endoscopy processing areas), on-site training, and online training courses for ambulatory surgery, SPD and endoscopy processing personnel.

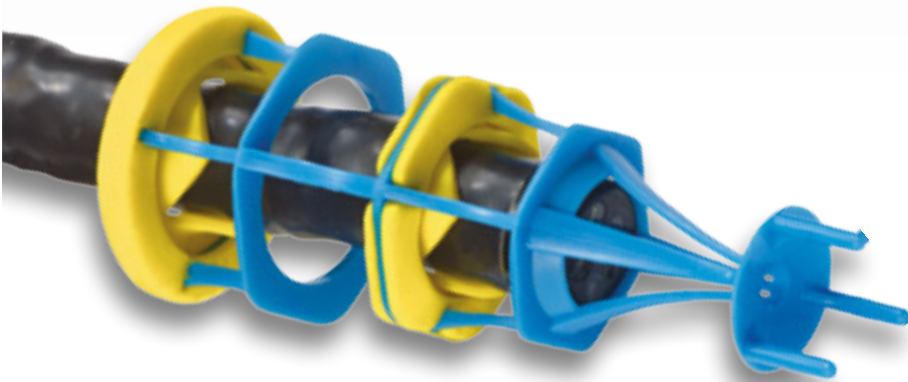
Chobin consults for dental and medical offices where sterilization is performed. She has authored three textbooks and two workbooks, has provided chapters and served as editor for other textbooks on sterile processing. Chobin has lectured extensively in the United States; Latin, Central and South America; Mexico; and in Asia and Europe. Chobin has published numerous articles in a variety of professional magazines.

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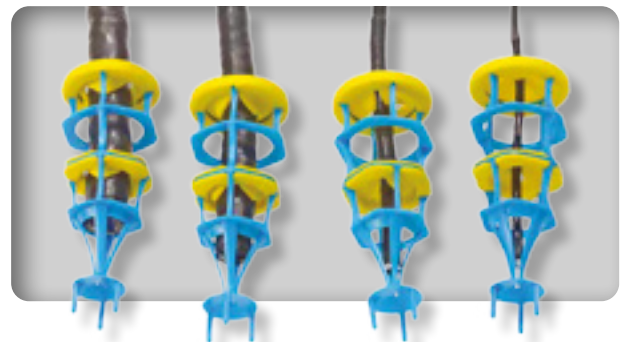


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It's your time to shine!

El Camino Health Endoscopy Center Going Above and Beyond

By Madison Knutson



In 2022, El Camino Hospital received the Fortune/Merative 100 Top Hospitals award. This award reflects the hard work of the entire El Camino Health team but can brush over the achievements of extraordinary departments. One such department is El Camino Health Endoscopy Center. The team regularly goes above and beyond basic endoscopy procedures.

Team members strive to do what is best for their patients. A nurse was recently recognized by the El Camino Hospital for her infection control efforts with a patient dealing with *C. auris*. Several El Camino staff members received Health Enhancement Research Organization awards for saving the life of a patient who required an immediate open-heart surgery.

El Camino's endoscopy team includes 11 registered nurses, half of whom are certified gastroenterology nurses and three of whom are preparing to test for the certification next month.

Clinical Manager of Endoscopy and registered endoscopy nurse Berit Marcum emphasized the importance of teamwork for the clinic. "Endoscopy is a well-oiled machine, with many employees having decades of endoscopy experience," Marcum said. "Everyone here is committed to providing the best of patient care while going above and beyond adhering to the highest standard of safety and quality of care."

The New Unit

In 2020, El Camino Endoscopy Center moved into a brand-new unit. This new space, located at the El Camino Health-Mountain View Hospital, offers nine pre-op bays, nine post-op bays and seven procedure rooms. The move happened as the team coped with the challenges related to COVID-19.

Aside from dealing with common digestive conditions, the center is focused on advanced endoscopic procedures such as endoscopic ultrasound, endobronchial ultrasound, motility studies, liver biopsy, endoscopic mucosal resection, fecal microbiota transplantation and double balloon enteroscopy.

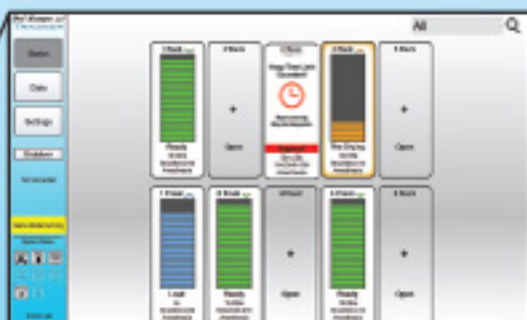
The center's services extend beyond endoscopy procedures. Cardiologists at the unit perform procedures such as transesophageal echocardiograms and cardioversion procedures. Interventional-pulmonology trained nurses assist with procedures that include bronchial thermoplasty, lung-volume reduction, electromagnetic navigation bronchoscopy, endobronchial ultrasound, and intrabronchial valve placement thoracoscopy.

Skills Day and Team Bonding

To ensure that El Camino endoscopy continues to work well, the clinic holds an event called Skills Day. The clinic

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“Everyone here is committed to providing the best of patient care while going above and beyond adhering to the highest standard of safety and quality of care.”

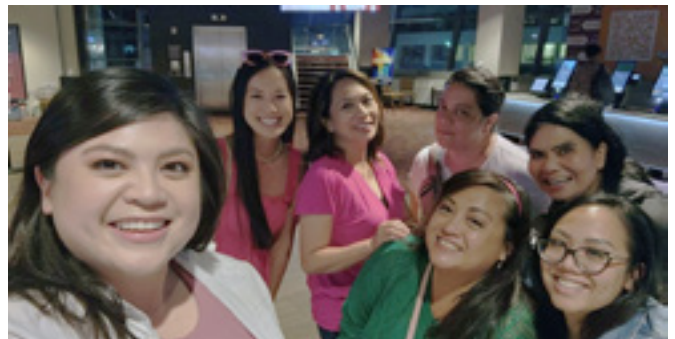
The event has been so successful that El Camino is planning to hold a similar event for their physicians to give them more experience in the endoscopy tools.

Professional development does not stop at Skills Day. Late Start Days, during which the team receives educational presentations from vendors, are meant to develop skills as well.

The center’s philosophy focuses on supporting their team. The team celebrates each worker’s birthday during a monthly party, and the clinic recognizes the certifications of their workers. The team has a chance to share their work concerns during the clinic’s unit practice council meeting.

The team also bonds outside of work in a variety of ways. Just recently, the nurses went to see the film, “Barbie,” dressed in pink.

Madison Knutson is a student at Arizona State University pursuing a bachelor’s degree in journalism and mass communications. She works as a producer for the Alaska Teen Media Institute and is a deejay for Blaze Radio at ASU.





Nightmare Inhabitants

Delving Into the Terrifying Depths of Intestinal Worms

By Brent Younglove, RN, BSN

In the sinister shadows of the human digestive system, a silent horror lurks, its victims unaware of the malevolent forces at play within. Imagine a parasitic underworld where insidious worms establish a nightmarish residence within their unwitting hosts, feeding on their vitality and thriving in the dark, damp corridors of their intestines. Receiving the diagnosis of such parasitic invaders can be nothing short of a psychological earthquake, shaking the very foundations of one's sense of well-being. The revelation triggers a visceral reaction, a blend of shock and revulsion, as the parasitic relationship between host and worm unfolds in a gruesome dance of survival.

Brace yourselves as we descend into the parasitic abyss, unraveling the mysteries of these horrifying inhabitants. From the varied types of worms that haunt the intestines to the chilling modes of transmission, we will delve into the depths of intestinal worms. But fear not, for our journey will also illuminate the path to liberation, exploring treatment options and unveiling strategies to safeguard against a parasitic invasion. Prepare to confront the nightmares that dwell within, for knowledge is the first step toward conquering the unseen horrors that plague us.

What are Intestinal Parasites?

Although the introduction to this article may read like an excerpt from a sci-fi horror novel, worms and other small organisms are often frequent inhabitants in human beings. Representing one of the most common infections in the world, intestinal parasites feed upon and grow within any compatible and unsuspecting host. Helminths (aka worms) represent one of the two main groups of intestinal parasites, the other being single-celled protozoa. Helminths are classified as a parasite; parasitism is a biological relationship in which one organism, known as the parasite, benefits at the expense of another organism, known as the host. The parasite exploits the host for essential nutrients, shelter, or other resources necessary for its survival and reproduction, while the host often experiences negative side effects, including significant health problems and, in some cases, death.

Types of Worms

Helminths are a diverse group of parasitic worms that can be classified into three main categories based on their general

appearance and characteristics: nematodes (roundworms), cestodes (tapeworms), and trematodes (flukes). Each group will be discussed in repulsive—but factual—detail.

Roundworms (Nematoda)

In the macabre tapestry of parasitic invaders, roundworms, also known as nematodes, emerge as silent architects of terror within the intricate folds of the human digestive system. These cylindrical specters, with their pointed heads and tapered tails, embody the nightmarish essence of parasitism.

Roundworms represent the most numerous multicellular animals on earth, with more than 15,000 known varieties of Nematoda. Yes, that's correct, roundworms are animals! Nematodes belong to the phylum Nematoda and are a diverse group of invertebrates. They are characterized by their cylindrical, unsegmented bodies and are known to survive in nearly all environments, including within ice and hot springs, making human hosts a rather easy target¹. Roundworm infections in humans often come from consuming contaminated food or by touching the mouth with unwashed hands. Though roundworms can range in size, anywhere from 0.3 mm (about 0.01 in) to 15 meters (about 49 feet) in length, those that infect human beings are typically less than 1 meter (3 feet). Roundworms can be commonly found in tropical and subtropical climates, where people use human or animal feces for fertilizer, in areas with inadequate sanitation, and in areas where people commonly eat raw or pickled fish or squid^{2,3}. Consider these facts the next time you indulge in that nigiri sushi!

Anisakis is a parasitic roundworm that is commonly associated with raw or undercooked fish, including sushi. When humans consume raw or undercooked seafood harboring Anisakis larvae, the larvae can attach to the lining of the digestive tract, leading to symptoms such as abdominal pain, nausea and vomiting. According to the CDC (2023), "Some people experience a tingling sensation after or while eating raw or undercooked fish or squid. This is actually the worm moving in the mouth or throat. These people can often extract the worm manually from their mouth or cough up the worm and prevent infection." If this doesn't make you cringe, I don't know what will!

To reduce the risk of Anisakis infection, it is recommended to freeze fish at temperatures of -20°C (-4°F) or below for at least 7 days or to cook fish thoroughly before consumption.

Additionally, careful inspection of fish for any visible parasites and adherence to food safety guidelines when preparing and consuming raw or undercooked seafood can help minimize the risk of Anisakis infections associated with sushi¹³. Infections arising from this worm are increasing in the United States, as eating undercooked fish including sushi becomes more common. Check, please!

Sushi aside, the most common human helminthic infection globally comes *Ascaris lumbricoides*, commonly known as the large roundworm, a parasite found in contaminated food, water, or soil. A female can lay up to 200,000 eggs per day. After the eggs hatch and are consumed by the host, the worms penetrate the wall of the small intestine and enter the circulatory system where they find their way to the lungs. The worms mature and then eventually penetrate the alveolar walls, ascend the bronchial tree and migrate up to the throat. They are then swallowed and find their way back to the small intestine where they continue to live, grow, and reproduce (3,4). According to the CDC (2019), adult worms usually cause no acute symptoms, but in cases of "high worm burden" may cause abdominal pain and intestinal obstruction. Additionally, migrating adult worms may cause symptomatic occlusion of the biliary tract, appendicitis, and even nasopharyngeal expulsion (exiting the mouth or nose)—now that's the stuff of nightmares!

Large roundworm infections are especially common in children, as they may be more prone to ingesting contaminated substances (i.e., contaminated soil) during play, or through hand-to-mouth activities. Diagnosis is usually made by testing stool specimens for ova (eggs) and parasites. Occasionally, adult worms can be found in stool or emesis samples and larvae can be found in the sputum during the pulmonary phase⁵. According to the CDC (2019), the use of "anthelmintic medications (drugs that remove parasitic worms from the body), such as albendazole and mebendazole, are the drugs of choice for treatment of *Ascaris* infections, regardless of the species of worm," along with sanitary prevention strategies.

Intestinal Cestoda (Tapeworms)

Next, we will explore the shadowy realm of intestinal cestoda, commonly known as tapeworms. These flat, segmented fiends, with their sinister scolex heads that bare hooks and suckers for host attachment are nothing less than microscopic nightmare fuel. With the ability to regenerate



when antiparasitic treatment fails, these worms are not far from the undead zombies of a horror movie.

Infection with tapeworms usually occurs after eating raw or undercooked meat or fish that contains the immature form of the tapeworm and is most prevalent in developing countries with poor sanitation. Divided of three parts, the body of an adult tapeworm consists of the scolex (head), the neck, and the segmented body called the strobila. The scolex contains suckers and rows of hooks to allow the tapeworm to securely attach to its host. The neck, just behind the scolex, contains stem cells that give rise to new strobila segments. These segments represent the offspring of the tapeworm, that break off and pass through in the stool. Each segment contains both male and female sex organs, as the tapeworm is hermaphroditic. Though people of all ages and sexes are susceptible to infection, children usually are not exposed until they are old enough to eat meat or fish. Diagnosis usually involves a combination of clinical assessment, laboratory tests, and sometimes imaging studies.

Like roundworms, treatment for tapeworm infections often requires the use of anthelmintic medications, like praziquantel, albendazole, and nitazoxanide. Praziquantel is effective against a wide range of tapeworms. It works by causing damage to the tapeworm's outer covering, leading to muscle contraction and subsequent detachment from the intestinal wall. Albendazole is another anthelmintic medication. It works by interfering with the tapeworm's ability to absorb glucose, leading to its eventual demise. Lastly, nitazoxanide, while primarily used for treating other parasitic infections, has shown efficacy against some types of tapeworms^{6,7,8}.

Trematodes (Flukes)

We have nearly made it to the end of this disturbing journey! In this last segment, we look at a flattened, leaf-shaped entity that embody the essence of parasitic terror. The name trematode comes from a Greek word that means "having holes" and generally refers to the external suckers that adult flukes use to draw nourishment from their hosts, like microscopic intestinal vampires.

Trematodes, commonly known as flukes, are a class of parasitic flatworms that typically have a complex life cycle that includes asexual generations and involves different hosts along the way. By example, the life cycle often starts once a free-swimming parasitic fluke passes from a hatched egg to its first host, typically a snail. The second and any subsequent hosts may be any number of small animals or plants that arise after the host ingests the larval fluke from the previous host.^{9,10}

Fluke infections can be contracted through the ingestion of contaminated food or water and is most prevalent in developing countries. Most often, infection occurs by eating uncooked fish, plants, or animals from fluke-infected waters. Preventive measures include thorough cooking of fish and proper hygiene practices, such as washing hands and

avoiding the consumption of raw or undercooked aquatic products. (I don't know about you, but my appetite for fish is quickly diminishing.)

Though mortality rates from infection are very low, the embolization (eggs or adult flukes entering the bloodstream and traveling to organs, such as the brain or heart) can occur, leading to death.

Treatment of intestinal flukes often involves the use of praziquantel, which helps detach these worms by altering the permeability of the parasite's cell membrane, leading to calcium influx and subsequent contraction of the worm's musculature.

It may go without saying, but as with any medical condition, individuals suspected of having an intestinal worm infection of any type should seek prompt medical attention for a proper diagnosis and appropriate treatment. Self-diagnosis and treatment are not recommended, as improper use of medications can have adverse effects.

Prevention is Key

Now that we are completely repulsed, what can we do to stay safe? The most effective practice is always prevention. This comes with education on how to properly prepare food, good sanitation practices, and understanding when and where the risks for infection are the greatest.

Some simple dietary guidelines that can promote a healthy lifestyle and may inhibit worm growth are included in this prevention strategy. While dietary changes alone are not a substitute for medical treatment when dealing with parasitic infections such as worms, certain dietary practices may complement medical interventions and support overall health. At the top of the list includes staying well hydrated to promote bowel elimination. The consumption of foods high in fiber, such as fruits, vegetables, whole grains, and legumes, may promote regular bowel movements and help maintain a healthy digestive system, while expelling intestinal worms—win! Some studies suggest that pumpkin seeds, pomegranate seeds, guava and papaya may have anthelmintic (anti-worm) properties, particularly against certain types of worms^{11,12}. However, more research is needed, and it's essential to always consult with a healthcare professional for appropriate treatment.


As we confront the chilling aspect of the human body's vulnerability to intestinal worms, a comprehensive understanding of preventive measures, early detection, and targeted treatments becomes imperative, empowering us to navigate the parasitic shadows of our bowels and perhaps even avoid inviting a nightmare inhabitant into our body altogether. Sweet dreams, my friends!

Brent Younglove, RN, BSN is a charge nurse of the endoscopy and ECT departments at Swedish Medical Center, in Issaquah, Washington. He received his B.S. degree in biochemistry and molecular biology at Hope College in Holland, Michigan and his B.S. degree in nursing from the University of Washington.



Is it time to
STANDARDIZE
the endoscope drying process?

By Kerry Dolan

A close-up photograph of a hand wearing a white nitrile glove, holding a black endoscope. The background is a blurred clinical or laboratory environment with various pieces of equipment. The lighting is bright and clinical.

Endoscope reprocessing is usually focused on achieving a sufficient and effective cleaning and disinfection process. However, recent studies have emerged highlighting the current pitfalls with endoscope drying and storage methods—showing worrying results. The endoscope drying process should be just as vital a component in reprocessing as cleaning and disinfection, but the current guidelines for endoscope drying are inconsistent and confusing for decontamination staff, and methods can vary widely between facilities.

Drying is a critical step in infection prevention, as any residual moisture left inside the endoscope channels can encourage biofilm formation. Endoscopes are saturated after reprocessing, and if there is any remaining moisture within the scope or the internal channels, this can lead to microbial growth.

Any imperfection in the endoscope cleaning process— inadequate cleaning and disinfection, insufficient drying, or inadequate storage—could result in post-endoscopic infections for the patient. However, the risk can be significantly reduced by any process used to dry the endoscope channels and by controlling storage conditions.

The significance of endoscope drying was identified in 1982, in a study by Gerding et al. which showed that 31% of stored endoscopes were contaminated with bacteria. The study led to the introduction of forced-air drying to endoscope storage, which reduced the contamination rate to 5%. This, and several other studies that have followed, have all shown the importance of endoscope drying to manage microorganism escalation during storage.

Manual Vs. Automated Drying

Flexible endoscopes can be dried in two ways: manual drying with lint-free cloths, and drying the channels with filtered, pressurized air for an extended period, after high-level disinfection and before storing in a conventional endoscope storage cabinet; or by placing the reprocessed endoscopes into a designated drying cabinet. Standard storage cabinets are not automated and do not provide direct airflow through the endoscope's internal channels. Dedicated drying cabinets supply medical-grade compressed airflow through the endoscope channels and over external surfaces. Studies have shown that this process can vary across healthcare facilities and is always dependent on the human factor.

Manual drying supported by medical compressed air is the straightforward method adopted by many facilities. A study in 2018 by Thaker demonstrated that endoscope channels can be dried sufficiently using medical compressed air. Guidelines in the U.S. recommend a 10-minute drying cycle, however this is highly dependent on the human factor, which becomes particularly impractical when healthcare staff are under strict time restraints.

Automated drying cabinets are designed to dry the entire scope, the channels, and the outside using a continuous flow of pressurized, filtered air through the scope channels. This ensures a standardized and validated drying and storage process in a closed environment. Drying can take between 90 minutes and several hours, depending on the type of endoscope. The efficiency of these cabinets has been demonstrated in several clinical and non-clinical studies.

The latest technology has seen the birth of new drying-cabinet options, which have built-in artificial intelligence and safety aspects to ensure traceability and scope security, along with the more traditional channel drying features.

However, the endoscope-drying process is yet to be standardized in healthcare settings, meaning that while some facilities may acquire a designated drying and storage area with automated drying cabinets, other hospitals may only have provision for a standard storage cabinet available to them.

The guidelines in the UK, Europe and the United States all

facilitate endoscope drying, but recommendations can differ between institutions. The use of alcohol flush is advocated by some for its antimicrobial activity and to promote drying, whereas other organizations do not endorse alcohol flushes due to concerns that the fixative effects of alcohol could encourage pathogens to be retained within endoscopes.

The manufacturer's instruction manuals can also be vague, with some stating simply to "dry the channels" without providing specific details about which type of air, how to apply it and the exact time required for sufficient drying.

Evidence is Key to Drying Time

In a study by Ofstead et al. in 2018, the drying methods of three different hospitals were evaluated. In Hospital A, endoscopes were reprocessed, then placed directly into a cabinet to drip-dry. The technician would manually apply the air purge using a syringe. It was observed that the scopes were not hanging in a fully vertical position.

In Hospital B, endoscopes were wiped with towels then flushed with alcohol and air purged immediately after reprocessing, however the towels they used were reused throughout the day before laundering. Endoscopes were then carried by hand and placed in the storage cabinet. It was noted that the cabinet had the facility for HEPA air filtration, but the fans were unplugged.

In Hospital C, scopes were wiped with single-use, lint free towels, then at a designated drying station endoscopes were given air purge and alcohol flush and connected to pressure-regulated air for 10 minutes based on a study the hospital had conducted.

To obtain results, a borescope was used and test papers to identify any residual moisture in the scopes left to hang for 24 hours. The results showed that using the drip-dry method, 83% of the scopes had residual moisture, but in the facility that dried the scopes for 10 minutes, only 5% of the endoscopes had residual moisture. The study concluded that 10 minutes of pressure-regulated forced air was most effective for drying endoscopes.

When the droplets in the endoscopes were tested, they showed significant microbial growth, but it is important to note that these results could also be due to insufficient reprocessing methods, use of insoluble products or waterborne pathogens.

A further study by Bakarar et al. inspected moisture residues retained in scopes after manual and automated drying processes. The results showed that no fluid retention was observed after 10 minutes of automated drying. The study evaluated five different scopes and tested manual and automated drying methods for five and 10 minutes to obtain these findings.

To establish the efficacy of automated drying of endoscopes in cabinets, in a further study, three different types of endoscopes were evaluated. A colonoscope (Olympus), duodenoscope (Fujinon) and an enteroscope (Pentax) were all artificially

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contaminated before the testing process and changes were observed to the residual internal contamination level when stored inside and outside of the drying cabinet for 12-, 24-, 48- and 72-hour periods.

When compared, the findings showed that when scopes were stored inside the drying cabinet, microbial contamination levels on the scopes were lower than the number of bacteria initially introduced and could decrease considerably thereafter. For endoscopes stored outside the drying and storage cabinet, microbial numbers were stable or increased.

Safe Storage, but for How Long?

A cabinet that keeps endoscopes secure and avoids contact with contaminated surfaces, but does not dry the scopes, is referred to as a storage cabinet. If an endoscope is not to be used immediately on the next patient, the scope and its components must be dried and stored away from contamination.

Appropriate storage is key to maintaining endoscopes' functionality. Endoscopes should hang freely in a closed, well-ventilated storage cabinet to avoid damage and facilitate drying. Cabinets should have a HEPA filter and provide safe storage for endoscope accessories.

However, there is insufficient data to provide a maximum duration for the use of appropriately cleaned, reprocessed,

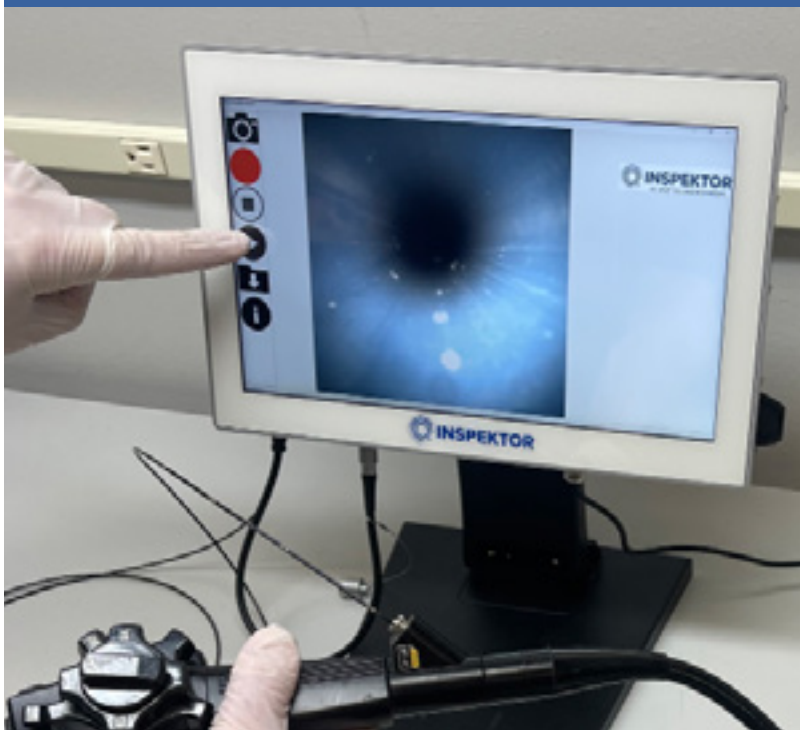
dried, and stored flexible endoscopes. According to an article reviewed and approved by the ASGE by Day et al., endoscopy units should evaluate the available literature, perform an assessment as to the benefits and risks around the optimal storage time for endoscopes, and develop a policy and system specific to their facility on endoscope storage time.

According to the same report, they suggest that some users may choose a combination of both cabinet types; this is dependent on their facility. Some hospitals may have controlled environment storage cabinets for daily-use endoscopes, and separate storage cabinets for the endoscopes only in occasional use and where reprocessing before use is cost-effective.

Current guidelines recommend that flexible endoscopes be stored in closed, ventilated cabinets that have been designed for vertical storage, or those with sufficient height, width, and depth to allow the scopes to hang freely without coiling.

AORN recommends that if a drying cabinet is not available, flexible scopes may be stored in a closed cabinet with the ability for HEPA filtered air that can provide a positive pressure and allow air circulation around the endoscopes. AORN also recommends that flexible endoscopes and endoscope accessories be stored in a manner that minimizes contamination and protects the device or item from damage.

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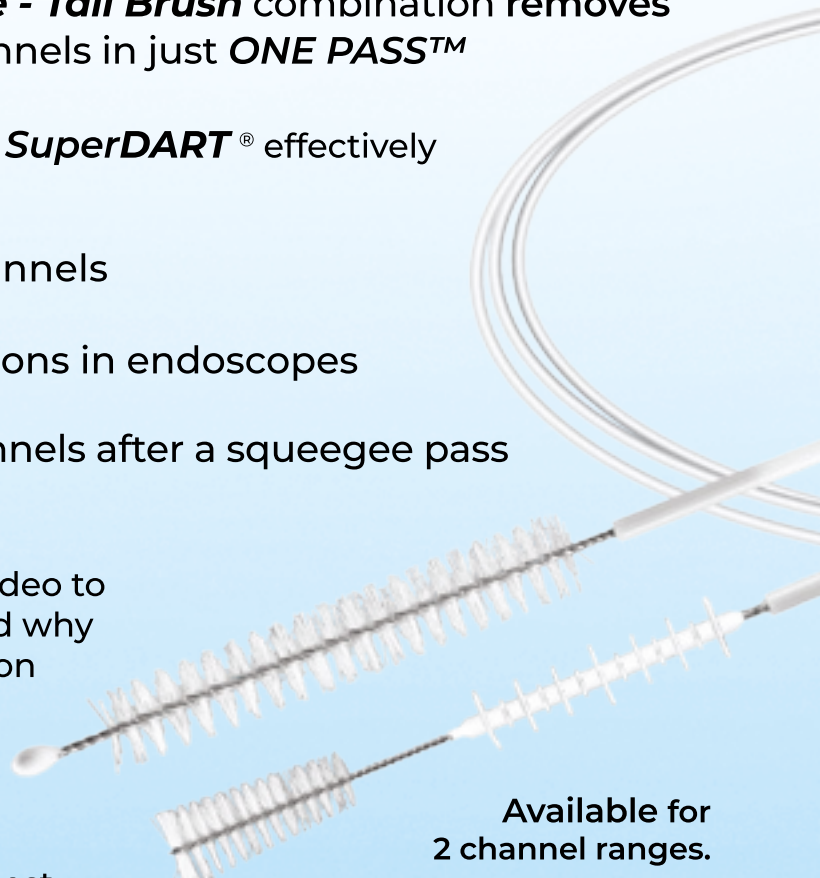
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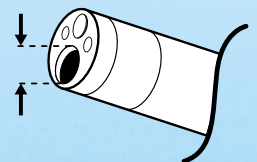
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Damage Control

Drying and storage cabinets do not protect the distal end from damage, and care should be taken when placing scopes in the cabinet and on removal, because damage can occur if endoscopes are allowed to come into contact with each other. In addition, the insertion tube and light guide can clash with hard surfaces while in the cabinet, which can damage the delicate optics of the scope.

Some scopes are too long to fit into the cabinet and can be damaged when the distal end hits the floor. Using a distal tip protector that is suitable for use in a drying cabinet can reduce the risk of damage. Several tip protection options are available in the market, but when choosing it is important to consider that a tip protector made of material that can retain moisture, like a sponge, can create an environment favorable for microbial growth.

Distal tip protectors should not cover the opening of the tip and should be single-use, unless otherwise specified in the manufacturer's written IFU. A preferred choice should allow maximum air flow while in the storage cabinet, such as the ProTech distal tip protector.

Should Drying Cabinets be Mandatory?

Current guidelines do not enforce drying or storage cabinets within healthcare facilities, but they are recommended. Endoscopy units are left to decide their own methods for endoscope drying, which is more often determined by departmental budget and capacity.

Drying and storage cabinets are large pieces of equipment that not only require plenty of space, but also a large chunk of departmental funding. According to an article in the Hospital Times in 2019, the purchase cost of an EN 16442-compliant drying and/or storage cabinet was \$25,000–\$40,000. In addition, the running and maintenance costs can range from \$4,300–\$5,000 per cabinet, per year.

Despite evidence indicating that endoscope drying is a fundamental step in the reprocessing cycle, a paper by Thacker et al. identified that of 249 U.S. institutions surveyed concerning duodenoscopy processing practices, 52.2% did not use forced-air drying after reprocessing.

With so many regulations applied for reprocessing endoscopes, it seems incorrect that there is not a requisite towards a standardized drying process. If endoscope drying is an essential factor in reprocessing, why isn't sufficient funding available to ensure that all facilities have identical drying equipment and processes?

Conclusion and Future Development

The use of drying and storage cabinets for endoscopes should be advocated by all healthcare facilities to reduce microbial contamination after reprocessing. Drying cabinets are not

Continues on p. 34

What Harm Can a Little Moisture Do?

Why Thorough Drying of Flexible Endoscopes is So Important

By Nancy Chobin, RN, AAS, ACSP, CSPM, CFER

Water is critical for the survival of life on earth. According to Weymiller, "Around 60 percent of our body is made up of water and we can only live three to five days without fluids." Our bodies use water to flush waste, regulate temperature, digest our food properly and transport nutrients.

Moisture can encourage the growth of certain microorganisms, such as *Pseudomonas aeruginosa*, a relatively common bacteria found in soil and water, as well as other environmental locations. Of the various strains of *Pseudomonas*, the one that most often causes infections in humans is *Pseudomonas aeruginosa*.

Standards and Guidelines

According to the Centers for Disease Control and Prevention, *Pseudomonas aeruginosa* "can cause infections in the blood, lungs (pneumonia), or other parts of the body after surgery. These bacteria are constantly finding new ways to avoid the effects of the antibiotics used to treat the infections they cause. Antibiotic resistance occurs when the germs no longer respond to the antibiotics designed to kill them. If they develop resistance to several types of antibiotics, these germs can become multidrug-resistant." The Multisociety Guideline on Reprocessing GI Endoscopes and Accessories states that endoscopes "should undergo drying after the completion of all reprocessing steps as described in the endoscope manufacturers' IFU."

The Association for the Advancement of Medical Instrumentation (AAMI) recommends that an endoscope and its components "should be dried after completion of the cleaning and disinfection process. Flexible endoscopes with channels should be dried for a minimum of 10 minutes with pressure-regulated forced instrument air or a minimum of HEPA-filtered air (Ofstead, 2018 [242]; Barakat, 2018 [79])."

SGNA agrees. "Drying is a critical element in reprocessing. Moisture allows microorganisms to survive and multiply; therefore, all channels and the surface of the endoscope must be thoroughly dried before storage. Outbreaks of *Pseudomonas aeruginosa*, *Acinetobacter* spp., carbapenemase-producing *K pneumoniae*, and other pathogens have been traced to inadequately dried endoscopes (Alfa, 2013; Carbonne et al., 2010; Kovaleva et al., 2013)."

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New Sedation Findings

Endoscopic Retrograde Cholangiopancreatography for Treatment of Bile and Pancreatic Ducts

By EndoPro Staff

An international team of expert anesthesiologists and gastroenterologists recently determined that patients undergoing endoscopic retrograde cholangiopancreatography (ERCP)—a procedure that combines upper gastrointestinal endoscopy and X-rays to treat problems of the bile and pancreatic ducts—may be better served by deep sedation without tracheal intubation, compared to receiving general anesthesia with tracheal intubation.

The research group developed evidence-based practical guidelines for clinicians to consider, after assessing the merits and risks of both techniques. The article was published in the *British Journal of Anaesthesia*.

Each year 600,000 ERCP procedures are performed in the United States. This procedure is time-consuming, resource intensive and can lead to adverse events, including admission to the post-anesthesia care unit. After assessing a variety of complex patient scenarios, the group determined that for short, routine procedures with low complexity, monitored anesthesia care (deep sedation) rather than general anesthesia could lead to faster and better recovery after ERCP. The researchers stress, however, that each institution should base this recommendation on its own resources, expertise and individual patient characteristics.

The below Q&A was completed by Omid Azimaraghi, M.D., research fellow in the department of anesthesiology, and Matthias Eikermann, M.D., the Francis F. Foldes Professor and chair of the department of anesthesiology for Montefiore Health System in Tarrytown, N.Y.

What led you to assess sedation techniques for endoscopic retrograde cholangiopancreatography (ERCP)?

There is currently no standard of care to guide the choice on monitored anesthesia care versus general anesthesia for ERCP to determine which approach produces the best outcome for patients. We conducted a large retrospective analysis and published in the *BJA*, which favored monitored anesthesia care (*Br J Anaesth.* 2021 Jan;126(1):191-200.) and from there decided to consult with experts all over the world to create consensus guidelines.

Why is this an important area of investigation?

The number of endoscopic retrograde cholangiopancreatography (ERCP) procedures performed is increasing. In the United States alone, more than 600,000 ERCP procedures are performed annually. General anesthesia versus monitored

sedation lead to very different effects on breathing and circulation, which can affect patients' safety and outcomes. During ERCP, anesthesiologists and gastroenterologists also share the patients' upper airway, such that a collaborative and consensual approach is needed.

What did you find?

Monitored anesthesia care is the favored anesthesia plan for ERCP for short, routine procedures. General anesthesia can be avoided in most scenarios. However, patients who undergo very long endoscopic procedures that carry a substantial risk of organ perforation or food aspiration should be intubated such that the procedure can be done under general anesthesia.

The consensus guidelines emphasize the value of effective interprofessional communication and also highlight that local culture and knowledge needs to be integrated into the decisions around the anesthesia plan.

How will this impact clinicians?

Monitored anesthesia care should be considered as the favored method of anesthesia in the majority of cases. We encourage gastroenterologists and anesthesiologists to communicate frequently—for example, discuss the procedures in a morning meeting—so that risk/benefit analyses can be conducted for individual patients, and clinicians can consider their experience levels, patients' comorbidities, and procedural risks.

How will this impact patients?

Patients would spend less time in the endoscopy suite since turnover time is shorter with MAC [monitored anesthesia care]. Also, eliminating tracheal intubation eliminates some predictable signs and symptoms for the patient, such as sore throat and hoarseness.

What are the next steps, if any?

This study will help clinicians reflect on the best way for them to practice anesthesia for ERCP at their institution. This work represents the highest level of evidence currently available that can be taken into account by clinicians as a guideline for clinical decision-making.

To read more on this topic, see the article, "Consensus guidelines for the perioperative management of patients undergoing endoscopic retrograde cholangiopancreatography," published in the *British Journal of Anaesthesia*

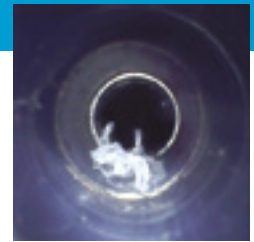
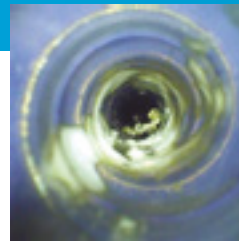
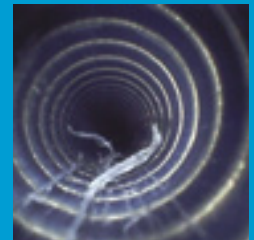
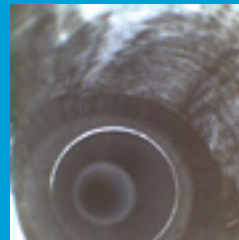
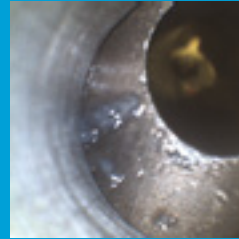
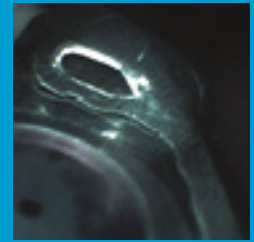
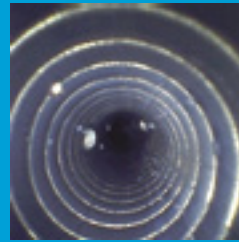


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ASGE Guidelines for ERCP

Every healthcare professional knows that guidelines from trusted industry associations can be invaluable for job performance and patient safety. Such guidelines exist for ERCP, courtesy of the American Society for Gastrointestinal Endoscopy (ASGE) Standards for Practice Committee. According to the ASGE committee members, ERCP has become an invaluable procedure in the diagnosis and management of a variety of pancreaticobiliary disorders since its introduction in 1968.

“The role of ERCP has evolved from a diagnostic to a mainly therapeutic intervention because of improvements in other imaging modalities including magnetic resonance imaging and/or MRCP and EUS,” the committee wrote in a guideline document, “Adverse Events Associated with ERCP.”

“For endoscopists to accurately consider the clinical appropriateness of ERCP, it is important for them to have a thorough understanding of available alternatives and of the potential adverse events associated with the procedure. In addition, they must understand and attempt to follow maneuvers that reduce the risk of adverse events. Early recognition and appropriate management of potential adverse events are critical to reducing morbidity and mortality associated with the procedure.”

The guideline is intended to help endoscopists provide care to patients, but it is not a rule and “should not be construed as establishing a legal standard of care or as encouraging, advocating, requiring, or discouraging any particular treatment,” according to the ASGE Standards for Practice Committee. “Clinical decisions in any particular case involve a complex analysis of the patient’s condition and available courses of action. Therefore, clinical considerations may lead an endoscopist to take a course of action that varies from these guidelines.”

The document is 44 pages (not including references) and includes background information and in-depth analysis, as well as quick-hit recommendations, such as the following:

1. We recommend that physicians who perform ERCP be facile with procedural techniques that reduce the risk of pancreatitis (i.e., wire-guided cannulation, prophylactic pancreatic duct stenting).
2. We recommend early precut sphincterotomy for difficult biliary cannulation when expertise is available.
3. We recommend pancreatic duct stenting to reduce the incidence and severity of post-ERCP pancreatitis (PEP) in high-risk individuals.
4. We recommend administration of rectal nonsteroidal anti-inflammatory drugs (NSAIDs) to reduce the incidence and severity of PEP in high-risk individuals without contraindication.

5. We suggest that rectal indomethacin may reduce the risk and severity of post-ERCP pancreatitis in average-risk individuals.
6. We suggest that there is insufficient evidence that a combination of rectal NSAIDs and pancreatic duct stenting is superior to either technique alone for prevention of post-ERCP pancreatitis in high-risk individuals.
7. We suggest periprocedural intravenous hydration with lactated ringers when feasible to decrease the risk of post-ERCP pancreatitis.
8. We recommend against the routine use of endoscopic papillary large balloon dilation (EPLBD) of an intact sphincter rather than endoscopic sphincterotomy with or without adjunct balloon sphincteroplasty to facilitate biliary stone extraction in patients without coagulopathy because of the increased risk of pancreatitis. If EPLBD alone is used, dilation more than 1 minute is recommended.
9. We recommend that sphincterotomy should be selectively performed in patients considered high risk for bleeding. Routine sphincterotomy should not be offered in high-risk individuals for bleeding when not absolutely indicated.
10. We recommend the use of a microprocessor-controlled generator with mixed current when sphincterotomy is being performed to reduce the risk of post-sphincterotomy bleeding.
11. We recommend that antibiotic prophylaxis be administered before ERCP in patients who have had liver transplantation or when there is a possibility of incomplete biliary drainage. Antibiotics that cover biliary flora such as enteric gram-negative organisms and enterococci should be used and continued after the procedure if biliary drainage is incomplete.
12. We recommend that facilities ensure strict compliance with current manufacturer protocols and U.S. Food and Drug Administration recommendations for duodenoscope reprocessing to limit duodenoscope-related transmission of infections.
13. We suggest that patients with suspected periampullary or instrument-related perforations from ERCP without evidence of peritonitis or systemic inflammatory response syndrome (SIRS) may be managed non-operatively.
14. We suggest that premedication is not necessary to prevent contrast media allergy during ERCP in patients with a prior history of food or intravenous contrast allergies.

To access these guidelines in full, visit www.asge.org.

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Gut Microbes

How an Occupational Therapist Was Inspired to Write Children's Books About Digestive Health

By Janice Maximov Condon, OT/L



As a child I was far from aware that a whole universe of gut microbes existed within myself. It was many years before I thought about the process of digestion. All I knew was that one chewed and swallowed food, it went into the stomach and was churned around, then distributed to different places along the way in the intestines. I never thought about what the liver, pancreas, or kidneys had to do with digestion. I certainly didn't think I'd eventually write a children's book about digestion.

Even as an adult I didn't connect my health problems in my mid-40s to the frequent antibiotics given to me as a child or think about how they had affected my gut microbes. The penicillin given to me then probably could have been avoided if I had told someone—my mom or my kindergarten teacher—that I wouldn't use the school restrooms. Instead, I'd hold my urine until I was home from school and race to the bathroom as soon as I got home. I refused to use the school bathrooms from kindergarten through third grade, ending up with bladder infections that were continuously treated with antibiotic injections. My dad was a doctor and penicillin was the "miracle medicine" of the 1940s, so I got my share.

I recently called my occupational-therapy friend from Colorado State University and told her I was writing an article for *EndoPro Magazine* about my early childhood health problems and how I came to write my children's books on

digestive health. I told her the reason I had so many antibiotics and bladder infections as a child.

"Oh no, Jan, I did the same thing! I just wouldn't use the school bathroom! As a 7-year-old, I ended up with acute nephritis, became extremely lethargic, and was admitted to a children's hospital. I had penicillin injections four times a day for a month!"

What a surprise! As children, we'd both had the same problem but we had never discussed what we thought was the origin: bladder infections that were treated with overdoses of penicillin. She had it worse than I with so much penicillin. Needless to say, we both are presently allergic to penicillin.

Both of us ended up with health issues, starting in our mid-40s. I suffered from severe skin rashes, no energy, weight loss, and cloudy thinking. By that time, Tona was walking with a cane—as her left knee would give out—and all her joints were painful.

I'd started researching nutrition and was following an elimination diet. I suggested it to Tona and it helped her a great deal. She went on to follow the lectin-free, Plant Paradox diet, created by Dr. Steven Gundry. She still follows it and today, at 81, is mostly pain free.

I, on the other hand, eliminated almost everything with no rhyme or reason, except apples and brown rice. I became

emaciated and very depressed. I went to a number of doctors, to no avail. It was difficult to go to work looking and feeling as I did, but I managed to drag through each day. Home-health occupational therapy gave me a certain amount of privacy and I was able to hide a lot of my skin rashes with long-sleeve shirts and pants, but every workday was an effort.

Fortunately, a friend talked me into attending a Weston A. Price local meeting. Price, a Canadian dentist who passed away in 1948, is known for his theories on the relationship between nutrition, dental health, and physical health. He founded the research institute National Dental Association, which became the research section of the American Dental Association. At the Price meeting I almost got up and left, as they were talking about eating meat—especially the fat and organs from grass-fed animals—whole raw milk, and fermented foods of all sorts. I was horrified! There were at least 60 people at the meeting who were all so positive about their nutrition. I, on the other hand, was miserable on my apple and rice diet. That helped me realize that maybe I was on the wrong track.

I started to educate myself, determined to read all the information I could find on the subject, including the book “Nutrition and Physical Degeneration” by Weston A. Price, DDS, on the sound principles of primitive eating.

I joined GAPS Diet group, developed by Dr. Natasha Campbell McBride, which consisted of nutrient-dense, unprocessed, and fermented food. In less than three months, my gut healed. Only three months into the diet change, I was feeling good... really good! I was so grateful. It totally turned my head around on how to eat and I have been thriving ever since.

What really impressed me was the vital role the gut microbiome plays in one's health. I learned that an adult body contains about 3 pounds of them, an entire universe of trillions. It totally fascinated me. I read everything I could find about digestion, gut microbes, and healthy eating. The more I learned, the more I wanted to share this information with everyone I could.

I felt that writing a children's book about gut microbes and digestion would be the most effective way to share my passion for this information. I especially wanted to reach young children before bad habits affected their lives forever. Finding a fun and positive way to present this miracle was my goal.

The book is titled “Ewww! Lulu Meets the King of Poo,” and is for kids 3 years old and up. I used rhyming, humor, an abundance of colorful illustrations, and accessible vocabulary. To reinforce the book, I created a video song “Do the Acidophilus Hula!” and posted it on my website. The glossary at the end of the book is for kids to look up the meaning of these new words.

In the book, Lulu dreams that she swallows herself and meets Emily Enzyme who takes her on an “incredible digestible tour” to meet one of her gut microbes, Abby Acidophilus, where they dance to “Do the Acidophilus Hula!” Then they travel through the ileocecal valve to meet Benny Bifidus, the King

of Poo. The story ends with a stem cell named Stanley, who guides Lulu through the circulatory system and out the lungs with a strong “Achoo!”

Here's an excerpt:

“It's our most important duty,
We make things happen in your booty
We connect with the heart, with how you feel,
We connect with the brain, what a heck of a deal!
We billions of Bifidi help with poop balance,
We regulate liquid, that's one of our talents.
We do all the things that good Bifidi do,
We help keep you healthy. We tend to the poo.”

And another excerpt:

“Benny Bifidus, King of Poo,
You love the stinky things you do!
Your many tasks are so important:
You're a Gut-Heart-Brain Informant.
All your billions are in cahoots.
I'm glad I'm wearing these rubber boots!”

It took me over a year to write my first children's story. Two very talented professionals, Chris Ficken and Steve Ferchaud, shared my vision and contributed greatly to the layout and illustration of my book.

Before COVID, I loved reading the book to first- and second-grade classrooms. I saw the enthralled expressions from all the children, listening so intensely, even the hyperactive ones. I got many questions from the students after every reading. After questions, we would all get up and dance to “Do the Acidophilus Hula!” A science lesson combined with singing and dancing makes it so much more memorable for the kids.

I sent a copy of my book to Dr. Natasha Campbell McBride, the developer of the GAPS Diet, who wrote back: “This delightful book is introducing children to a very important concept—the existence of gut flora and its importance in human health. Ninety percent of ALL CELLS in our bodies are in our gut flora! The complexity of that microbial world inside us is just as magnificent as life on Earth itself. To a very large degree, microbes are in charge of our health and vitality. We must know about them and take good care of them. I wish this book every success!”

My driving hope after so many years of suffering in the dark is that health professionals use this knowledge in their practice. Specifically, spreading the awareness of the importance of gut microbes to overall health. Hopefully, this book becomes one of the venues of that awareness.

Janice Condon has worked as an occupational therapist in the health system for about 50 years, presently at a skilled nursing facility. She graduated from Colorado State University, Fort Collins, with a B.S. in occupational therapy in 1964. After publishing “Ewww! Lulu Meets the King of Poo,” her next story organically presented itself: what specifically are good and bad food choices? Those questions compelled her to write the next book, “Lulu How Do You? (How Do You What? Be Good to Your Gut).” She's currently working on her third story, about an obese boy overcoming his sugar habits.



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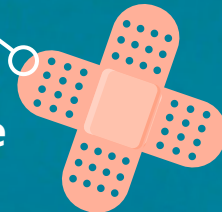
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designed to improve reprocessing but should be used in conjunction with current reprocessing methods to maintain endoscope cleanliness and viability for the next patient.

However, with the inconsistency of

current guidelines between facilities, a serious issue needs to be addressed. Institutions should be looking to create a standardized process for endoscopes to ensure they are subject to the same drying and storage conditions in all healthcare settings to ensure safe,

reprocessed, patient-ready endoscopes.

Additionally, an improved testing method for reprocessed scopes should be developed to ensure that endoscopes are not left with residual moisture in the channels. It is the responsibility of all societies to create consistent guidelines to make this aspect of the reprocessing cycle standardized, in order to ensure the safety of patients everywhere.

Kerry Dolan has had a long career in freelance writing and is currently head of marketing for Meditech Endoscopy Ltd., a global product development company. Her marketing expertise focuses on creating innovative marketing strategies, content creation and managing the company website and social media accounts. Dolan has a special interest in creating awareness about the challenges that endoscopy staffers experience, and to provide solutions that combine industry and nursing staff working together for better patient outcomes.

Guest Editorial

Continued from page 8

processing practices across the globe. Also in the fall, HSPA's VP of strategic initiatives, Damien Berg, represented the association at the AccredX 2023 conference in Norfolk, Virginia. This event brought together educators and administrators to learn program management strategies and best practices. The conference allowed HSPA to introduce the sterile-processing profession and our educational and certification offerings to healthcare educators.

HSPA is committed to providing unmatched support and service to its members, certification holders and others in the profession and will continue to provide updates as new developments and opportunities unfold in 2024. For more information about HSPA and the HSPA Foundation, visit www.myhspa.org.

Julie Williamson is the communications director and editor-in-chief for the Healthcare Sterile Processing Association.



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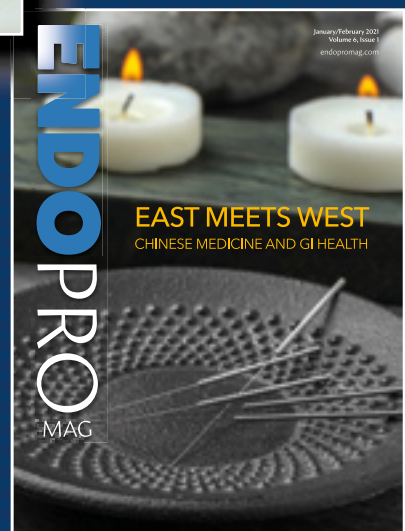
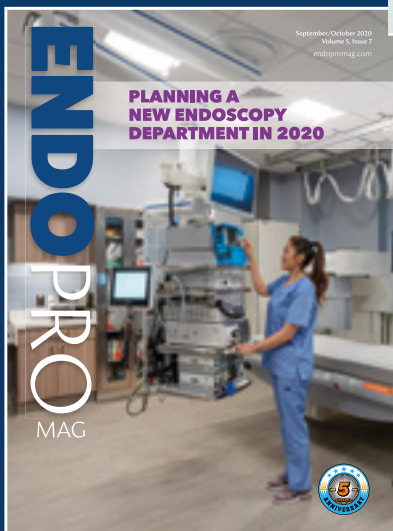
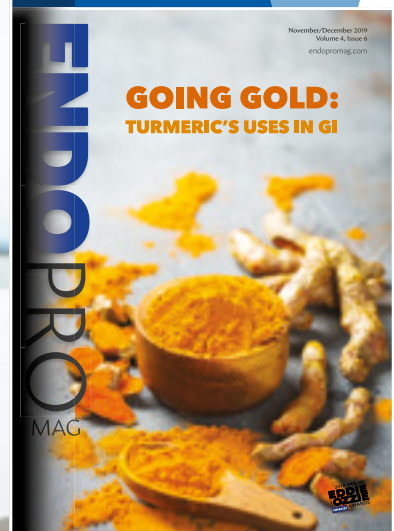
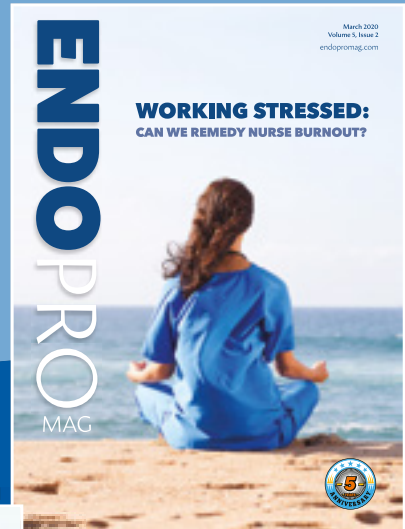
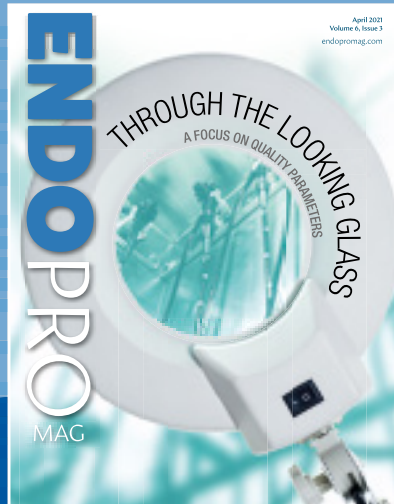
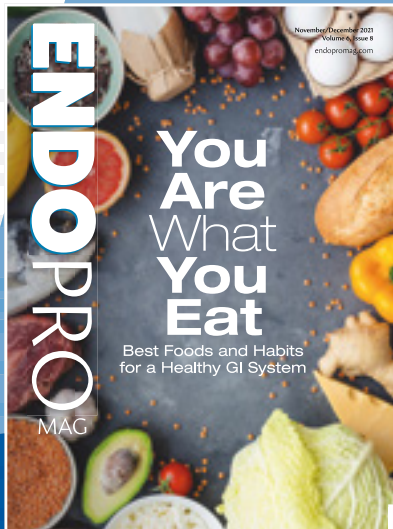


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