CATEGORY RESOURCE GUIDE

Suction canister systems & accessories

Included in this document

(Click to view each section)

Vizient award overview

Awarded suppliers

MS7601 – Aspen Surgical
MS7602 – Cardinal Health
MS7604 – DeRoyal Industries

Distribution

Both direct and distributed through the following distribution channels:

Med/surg

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Making supply uncertainty a thing of the past, not the future

To help members maintain supply assurance for essential products, Vizient shares insights via **category resource guides** on vizientinc.com. These category-specific documents contain comprehensive manufacturing, logistics and utilization insights to help members source supplies with confidence. Category resource guides are one way we're building supply assurance together.

Market landscape

The recent pandemic and ice storm in Texas combined to impact the production of Suction Canisters. The market has been constrained with many facilities have these products allocated by suppliers for much of the last two years. As the suppliers return to health, and the constraints on this category begin to decrease, it is critical for supply chain leaders to take a proactive approach in implementing inventory and supply chain strategies that ensure their facilities are equipped to meet future unexpected circumstances.

Manufacturing insights

Product overview

A suction canister is a temporary storage container used to collect secretions or fluids removed from the body. A vacuum for the suction system is generated either by a centrally located vacuum generator or by a free-standing device. The negative pressure generated by the suctioning device pulls secretions and mucus from the airways, through the catheter, and into a collecting tube or chamber These fluids or secretions may come from the patient's lungs to clear airways and to resuscitate, wounds to facilitate healing, stomach to drain contents, the surgical field to recycle blood. Suctioning can also assist in difficult deliveries of newborns, and clear waste gasses and smoke from operating rooms. The suction canister may be seen attached to the wall of the patient's room or resting on the floor, or in a portable suction canister stand.

There are approximately five (5) components to a suction device: a pump, regulator, reservoir, transfer tubing and catheter.

The suction canister has at least two outlets for tubing. One of the tubes is attached to a suction source and the other to the patient. The suction source (which may be a wall outlet or a portable compressor) generates a negative pressure in the canister that helps to drain the fluids or secretions from the patient. The other tube is connected to the patient. Examples of tubes that are used with the suction canister include nasogastric, respiratory suction catheter, G-tube, surgical suction handles or tips, and wound drains.

There are four (4) primary types of airway suctioning: nasal, oral, pharyngeal, and deep suctioning. Additionally, there is endotracheal, nasotracheal, bulb, oropharyngeal, nasopharyngeal, and tracheostomy suctioning.

According to The Joint Commission, human error, transmission of infection, excessive negative pressure, and equipment failure are the most common causes of adverse events.

Selection factors

The Vizient Contract Brief offers the following categories for suction canister systems:

- Suction canisters
  - Rigid: disposable clear plastic containers with attached lids. They are a safe way to lock collected fluids away in a closed system. They also often include measurement lines to track the amount of fluid suctioned.
  - Semi-rigid reusable: reusable outer canister with less plastic with a disposable semi-rigid liner; usually more economical
  - Flexible: Reusable outer canister and a disposable flexible liner; may provide storage advantages.
- Suction canister liners: fit into a hard, reusable outer container.
- Suction canister kits: can contain suction tubing, canister, silicone tubing, elbow connector and suction filters. They may also come with Yankauer tips and solidifiers.
- Specimen sock: is used to collect and retain specimens for analysis.
- Solidifiers: a dry granular superabsorbent polymer material which solidifies waste into a gel-like substance without compromising the integrity of the closed suction system. It minimizes the risk of spilling and spreading dangerous pathogens
- Tandem tubing: allows you to attach multiple suction canisters together for large fluid volume cases.
- Roll stand: accommodates a single or tandem canister configurations.

- Wall plates: plates that allow you to place suction canisters at a custom location on your wall.
- Brackets: are used to support a canister in a slide mount like a wall plate or mobile suction cart.
- Accessories: may include tubing connectors, Yankauers, filters, and suction handpieces.

When choosing a suction canister system, here are some characteristics to consider:

- Portability – allows you to travel with your patient should you need to transfer them to another unit or facility, offering stabilizing care. should you need to transport the patient; the canister should be lightweight enough to carry and be placed in tactical bags or crash carts as well as durable enough to sustain the transport itself.
  - Volume and construction – Is the canister right sized for the procedure(s) it is being utilized for? Does the construction of the canister support the waste disposal protocols of your facility?
- Suction tip or cannula – straight? Slightly curved? Sharply curved? Plastic Yankauer or stainless-steel surgical tip?

OEM and manufacturing location

Cardinal and DeRoyal are both the OEM for their products and manufacture their canister products domestically. Cardinal's tubing and suction tip products are produced in multiple manufacturing sites in Mexico and East Asia.

Raw materials

Raw materials include Polypropylene, Polystyrene, LDPE, PVC, and Amcor Resin

The lastest manufacturing insights are available here.

Regulatory and approvals

Regulations apply to how a facility handles the waste gathered by a suction container, how to protect employees from communicable diseases, and what settings should be.

Joint Commission International (JCI) publishes comprehensive accreditation standards to help health care organizations around the world address their most pressing issues in patient safety and advance their goals for continuous quality improvement.

ISO (the International Organization for Standardization) drafted a medical suction equipment standard safety requirement. It covers power input, environmental conditions, and electrical, mechanical and hazard protection.

OSHA considers open suctioning of airways as an aerosol-generating procedure and offers specific guidelines on developing a COVID-19 plan as it relates to suctioning patients. The Hospital Respiratory Protection Program Toolkit which was authored by US Department of Labor, OSHA, CDC and NIOSH was recently updated in 2022.

CDC offers guidelines for Environmental Infection Control in Healthcare Facilities.

Non-awarded suppliers

Medline, Bemis, O&M are all non-contract suppliers in this category. Medline is a full line supplier, Bemis offers suction canisters, and O&M offers suction tips/tubing.

Logistics insights

Transportation/shipping

Cardinal has multiple distribution centers and Regional Distribution Centers in their existing distribution network

Cardinal and DeRoyal ship the majority of these products through distribution. Both suppliers manufacuture their canister products domestically.

See additional freight update here.

Product storage

Both federal and state regulations address the safe transport and storage of on- and off-site regulated medical wastes. Health-care facilities are instructed to dispose medical wastes regularly to avoid accumulation. Medical wastes requiring storage should be kept in labeled, leak-proof, puncture-resistant containers under conditions that minimize or prevent foul odors. The storage area should be well ventilated and be inaccessible to pests. Any facility that generates regulated medical wastes should have a regulated medical waste management plan to ensure health and environmental safety as per federal, state, and local regulations.

Utilization insights

Clinical contract support resources

AORN: 3 Golden Rules of Fluid Waste (2018)

This article addresses safety issues to protect your staff, what constitutes red bag waste and briefly discussed OR challenges.

AORN: Fluid Waste Management Made Easy (2021)

This article provides tips on selecting the right fluid disposal system for the OR.

Anesthesia: Guidelines for Anesthesia Suctioning (2015)

This article addresses the question: Are there any guidelines for anesthesia suction for emergency airways? It addresses ISO and NFPA standards. The article discusses set up and study that was done on pressure and flow of fluid related to viscosity

The Joint Commission: Medical Suction and Fluid Waste Management (2017)

“This white paper provides a high-level review of the current state of medical vacuum suction and fluid waste management systems. It also includes clear recommendations on managing fluid waste and evidence-based purchasing and managing the vacuum suction system, including a suggested checklist for reference.”

Respiratory Therapy: Airway Suctioning: Overview and Practice Questions (2022)

In this article provides an overview of airway suctioning, including its indications, contraindications, and techniques

5 Things to Know About Suction Canister Management (2020)

This article talks about practices in cleanliness, disposal of waste, storing canister and attachments, cleaning the machine, and choosing the right equipment.

Building supply assurance

Potential supply vulnerabilities

Cardinal and DeRoyal both produce Suction Canisters domestically. Cardinal Tubing/Suction Tips portfolio is produced from a combination of production facilities in Mexico and East Asia.

Conservation strategies

Because predicting the next supply shortage is impossible, it is important that healthcare providers not only adopt and implement care practices strategies to conserve critical products and supplies, but it is equally as important to sustain leading practices that will help ensure the availability of essential products post recovery and in the future. Some hospitals have reported decreasing their intravenous solution use by as much as 50 percent in some care areas by continuing to adhere to the conservation strategies implemented during the recent shortages
Healthcare providers and other leading organizations have identified and recommend the following actions:

- Suction canisters: Typically replaced monthly. You can clean and re-use indefinitely if the canister is intact. Clean with hot, soapy water or a quarter-strength vinegar and water solution and rinse well. Solidifying agents help prevent leaks or spillage of contents.
- Use a disposable canister liner so the liner may be discarded but the reusable canister preserved. Disposable liners can take up less space in your facility's storage locations allowing more product to be stored in the same amount of space.

Additionally, with other products and services:

- Assess and identify all hospital services
- Identify and list critical products, supplies, and resources required to sustain operation of those areas identified and ranked in the first step
- Maintain the internal planning team document with accurate information. Review and update the document on a routine basis with current employee contact information. If a team member no longer works in the organization, identify the replacement and communicate the information to all stakeholders
- Communicate practice changes and procedures frequently to staff and stakeholders
- Hold regularly scheduled planning meetings in the absence of a supply chain shortage or event. This will help to ensure that identified processes and protocols remain relevant and any issues requiring revisions and/or updates are addressed in advance of a shortage or disaster

If your organization has implemented conservation strategies for Suction Canister Systems and Accessories, or any other category, please share your information here. The information you share will be anonymous? unless you grant Vizient permission to share.

Supply chain programs

Novaplus

DeRoyal Industries (MS7604) is a Vizient Novaplus supplier. Through Novaplus, access to products goes deep with more than 15,000 individual line items — including numerous high-demand items. The brand encompasses a broad range of categories needed across the care continuum, such as: anesthesia, business products and services, diagnostic imaging, food, laboratory, medical, orthopedic, pediatric, pharmacy, respiratory and surgical. Today as the capabilities, expertise and purchasing power of Vizient grow, we offer expanded value so you unlock even more from your private-label purchasing. For more information click here.

Pediatric Program

Cardinal Health (MS7602) participates in the Vizient Pedatric Program. The Vizient Pediatric Program is a supply chain program focused on delivering savings, quality, and choice from an industry-leading pediatric product portfolio. Additional information is available here.

Planning for disruptions

Distributor recommendations

Best practice strategies

Vizient offers the following best practices to help members manage disruptions. These suggestions are available to help you gain insight on how the industry is managing supply challenges.

If your inventory is low

Vizient is committed to bringing hospitals, manufacturers, distributors and the industry together to talk about this issue and any long-term implications. We feel continued dialogue around the issue by experts; hospitals, manufacturers, distributors and industry will be crucial to ultimately arriving at a solution to vexing issue. During critical supply periods, members should continue to order their normal levels of products in order to ensure continued availability for all institutions.

- If you begin to experience a shortage:
- Evaluate your current supply
- Contact your local supplier representative and report exactly how many days' supply you have left.
- If you are not getting a response from suppliers, contact Vizient so we can facilitate communication between member and supplier; provide whether you are ordering direct or through distribution (med/surg or pharmacy), and indicate supplier and distributor (if applicable) when you contact Vizient.
- We encourage you to continue the conversation within your organization, with your peers and with the manufacturers and distributors to identify ways to manage your ongoing I.V. solutions needs.
- Submit inquiries to disasterresponse@vizientinc.com.

Expedite supply resolution

To expedite resolution for supply issues, contact your local supplier and provide the following information:

- The description and item number of the product that is experiencing a shortage
- Whether you are purchasing directly or through an Authorized Distributor
- Days' supply remaining in your inventory

If expanding your facility

We suggest members notify suppliers when expanding their facilities to assist in planning and anticipate increases in allocations. You should consider notifying your suppliers of at least three months ahead of the completion of your facility to ensure sufficient capacity.

Building supply assurance together

Collaboration among suppliers, distributors, members and Vizient strengthens the assurance of supply for all stakeholders. Our wealth of experience, actionable data and predictive planning helps to strengthen supply assurance. Further, our work with stakeholders focuses on improving supply chain risk mitigation as we collaborate to enhance data, increase supply visibility and expand inventory access.

Four themes keep us centered and are the pillars of our supply chain assurance efforts: insights, access, enablement and advocacy. Learn more about our supply assurance strategy.

In the event of a supply disruption, Vizient will publish a product disruption brief to the Supply Assurance webpage. Curated by Vizient experts, these documents provide a summary of current conditions and strategies to manage product-level disruptions.

In addition to our disruption briefs, Vizient also compiles the monthly Supply update executive summary which tracks all known supply chain disruptors, including current market challenges, category-specific product updates and recovering markets.

Whether a supply disruption is the result of a natural or human-made disaster, it is imperative that members are informed. The Vizient Disaster Preparedness webpage was developed to help providers meet supply chain needs before, during and after an event. The Supply Update section of the guide is updated on a frequent and routine basis with communication from all awarded suppliers that have manufacturing facilities in areas impacted by a disaster. Additionally, a status update list of those manufacturers whose operations have been affected, as well as a list of impacted product(s), will be maintained and updated as that information is received from suppliers.

The importance of an internal planning team

Identifying an internal planning team is imperative to managing supply, mitigating risks and sustaining operations during a supply shortage. According to the Supply Chain Disaster Preparedness Manual developed by the CDC, internal teams should consist of representatives from supply chain, purchasing, emergency management, each clinical/care delivery area, inventory staff, receiving and distribution staff. Relative to medication and solutions, Vizient member feedback indicated the pharmacy department as an integral member to the internal team, as clinical/pharmacy practice changes may occur. Additional members may include the facilities safety manager, security, risk management, legal, marketing and communications, and public relations.

A simple internal team planning document will help to identify, contact and quickly convene relevant team members. See the sample below:

Name	Title	Department/role	Phone	Email

Once an internal team is identified, additional considerations before beginning the development and implementation of a recovery plan include the following:

- The team's goals
- The responsibilities of each planning team member
- Other department/team members who may need to be involved
- Frequency of team meetings
- How the goal/mission be accomplished
- How information will be documented and communicated to the broader audience
- A current framework for success either within your facility or from a leading organization

Stakeholder communication

During supply chain product disruptions, it is vital that accurate and timely information is disseminated to internal and external stakeholders. The following actions should be considered in an effort to facilitate and ensure informed decisions:

- Designate the point person or persons who will be responsible for developing, disseminating and monitoring all communications coming from the internal planning team.
- The internal planning team should collaborate key messages/information to stakeholders, such as changes in policies and/or practice changes.
- Clearly communicate the roles and responsibilities of all staff based on the agreed upon recovery plan. If there are changes to the plan at any time, timely communication of those changes will help to increase risk mitigation and minimize interruption of patient care.
- Establish communication mechanisms for information exchange. Examples include but are not limited to regularly scheduled briefings and meetings, in-services, staff trainings, live/recorded webinars, memos and emails.
- Determine the frequency of reminders and updates regarding supply disruption status and anticipated resolution.
- Frequent updates and reminders after a supply disruption has been mitigated or eliminated help to ensure ongoing success and sustainability of best practices.

Supply management and logistics

A leading practice identified in managing recent shortages is a centralized management approach of impacted product codes. A key responsibility of the internal planning group is to identify all affected product codes and to determine the amount of supply on hand, expected and any allocation protocols implemented by the supply source. Once the current product status is determined, the following actions are recommended:

- Update and maintain an accurate inventory list. Each care area that utilizes any product code on the inventory list should identify a point person to collect on hand and usage levels on an agreed upon frequency. That information should be reported back to the internal planning team. Inventory can either be managed by care delivery areas or in a centralized manner.
- Identify space in the facility to store, manage and distribute product. Designate authorized personnel responsible for maintaining the inventory (expiration dates temperature, ventilation, utilization, equipment maintenance and repair, etc.).
- Develop and seek approval for the inventory management protocol and communicate this information to all stakeholders.
- Update and maintain accurate purchase order and allocation protocols from the contracted supplier and your group purchasing organization (GPO).
- Update and maintain accurate emergency contact information for all suppliers as well as internal stakeholders. This process should be done at least every six months.

- Review the inventory management status on an agreed upon frequency with the internal planning group. Assess for barriers to its effectiveness, implement any changes necessary and communicate those changes to all stakeholders.

Planning for all levels of care and ancillary products

Feedback from lessons learned indicated the need to include all levels of care and ancillary products, if applicable, in the conservation plan. If your provider system has children's hospitals, ambulatory surgery centers, outpatient clinics and/or long-term care facilities, utilization and logistics of products and supplies must be incorporated into the plan. Additionally, it is vital that ancillary products are considered when contemplating allocations and purchase orders. During the recent drugs and solutions shortages, as large volume solution bags went on back order, smaller volume bags, compounding products, and syringes also went on back order because of practice changes. Therefore, conservation planning should include actual and the additional ancillary products that may be required to sustain a clinical and/or operational practice change.

To learn more, please contact:
Kylie Taylor, Dir., Assurance.,
supplyassurance@vizientinc.com.

