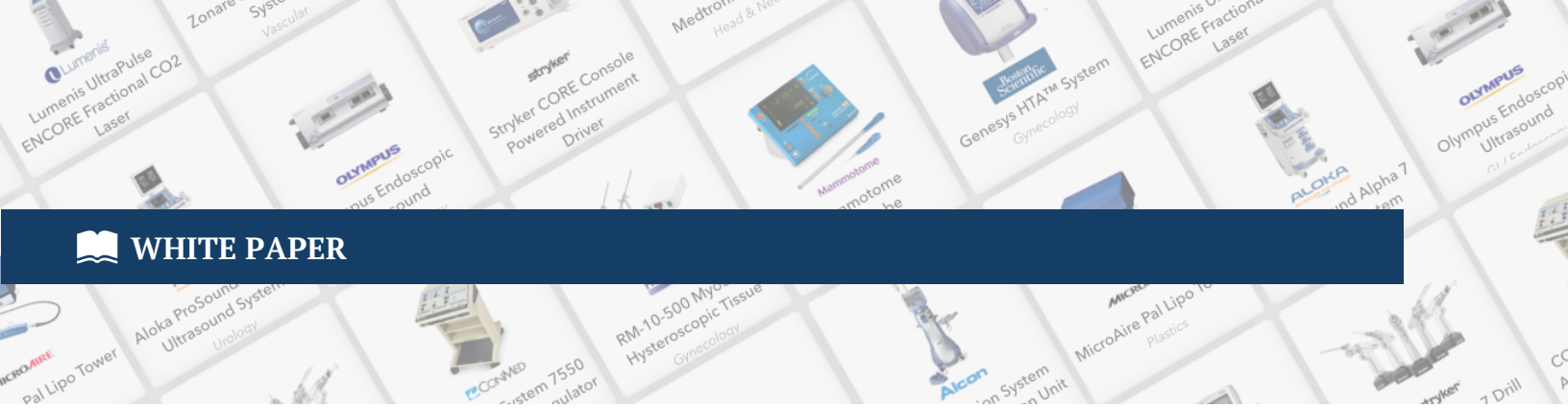

WHITE PAPER

The Ultimate Guide to Sharing Medical Equipment

How healthcare leaders can tap into the sharing economy to reduce redundant inventory, improve asset utilization, and equip physicians with the best technology at the most affordable price.

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Introduction

The conditions to deliver healthcare have never been more challenging. Health system expenses are rising faster than revenue growth, resulting in declining operating income. According to the American Hospital Association, the percentage of hospitals with negative total and operating margins increased by the end of 2016 to recession-era levels[1]. Without ways to cost-effectively extend operations, many hospitals are losing once-profitable services like surgery and diagnostics to outpatient facilities.

At the same time, while hospitals are seeking innovative ways to cut costs that do not impact patient care, idle medical equipment is draining precious capital dollars. As technology becomes a gating factor for surgical procedures, some of the most expensive

[1] American Hospital Association (2018). *TrendWatch Chartbook 2018: Trends Affecting Hospitals and Health Systems*. American Hospital Association, p.37.

pieces of capital equipment are purchased despite very low case volumes. Health care providers spend $45B/year on medical equipment that often sits idle for up to 90% of its useful life.

Establishing a practice of sharing equipment maximizes the value of capital purchases while reducing the need to rent and lease equipment. Perhaps more importantly, sharing medical equipment helps hospitals better align care around doctors and their patients, no matter where they're located. Hospitals can stretch limited capital budgets by collaboratively purchasing equipment, which provides clinical staff with access to the resources needed for service line expansions.

The value of equipment sharing

As health systems right-size their equipment fleets, those savings can be invested into expansion opportunities that increase market share, provide doctors with access to newer technology, and extend care deeper into the community.

SAVE MONEY

Right size your mobile capital equipment fleet

Hospitals and health systems typically purchase capital equipment based on the needs of each site of service. There are hundreds of equipment types with extremely low utilization patterns. In fact, analysis has shown that up to 50% of all mobile capital equipment types have at least one or more piece of the fleet idle every day of the year[2]. As more facilities begin to share, equipment liquidity increases, further resulting in the potential for fleet downsizing, with data showing reductions from 30-50%.

During the capital planning process, finance and supply chain executives should vet each request to determine whether current equipment can meet the needs of clinical staff through sharing. By avoiding redundant purchases, more unique equipment requests can be fulfilled for a greater number of providers. Additionally, all new equipment purchases should be evaluated for usage at multiple facilities. These "collaborative purchases" help drive systemness in your equipment ownership model instead of the traditional, static model.

Reduce your rental activities

Improving access to network-wide resources decreases rental activities. Hospitals will rent equipment if they need coverage due to owned equipment being down for maintenance, if equipment is double booked, or to handle a surge in case volume. Sharing equipment can be a substitute for renting equipment, as most hospitals have backup equipment with lower utilization that can be borrowed, even with short notice.

[2] Cohealo, Inc. (2019). Aggregate data from the Cohealo platform. Unpublished raw data.

Reduce service contracts and preventive maintenance costs

According to industry research, total cost of ownership, over five years, of medical capital equipment can be as high as 1.2X of equipment purchase price[3]. Idle equipment siphons budget from the health system but does not ultimately contribute to revenue growth. Right-sizing your capital equipment fleet directly translates into operating savings through reductions in service contracts, preventive maintenance costs, and other hidden expenses, such as storage.

IMPROVE PATIENT CARE

Keep up with the latest technology

With equipment vendors releasing new models every two to three years, it's nearly impossible to keep up with the latest and greatest technology. Equipment sharing helps doctors to access newer equipment, faster. With increased utilization, hospitals can sweat their assets through double depreciation, freeing up capital and bringing the most innovative care to patients.

Decrease equipment-related case delays

A late add-on case, equipment down for maintenance, or a need for a backup unit all present similar scenarios where shared equipment can be sourced instead of rescheduling the date of surgery. Additionally, flooding, fires, or poor storage are all scenarios where the viability of equipment can be impacted. If equipment goes down due to any such emergency, borrowing equipment can ensure that cases are not delayed, and expensive rentals required.

SYSTEM GROWTH

Expand service lines & reduce patient leakage

Hospitals will often refer patients to another in-network facility if they do not offer a specific procedure or service line. This limits their ability to maximize case volume, especially if they have a sizeable number of referrals within a single specialty. With equipment sharing, idle capacity becomes a potential strategic asset. An equipment sharing program leverages unused capacity in high cost, very low par level equipment that must remain in service and provides a strategy for how that capital can drive volume.

[3] Fabian, R. (2019). *Need to purchase imaging Equipment? Consider all costs of ownership*. [online] Beckershospitalreview.com. Available at: https://www.beckershospitalreview.com/finance/need-to-purchase-imaging-equipment-consider-all-costs-of-ownership [Accessed 17 Jul. 2019].

Recruit physicians with shared equipment

One of the biggest challenges in recruiting doctors is ensuring that specialized equipment is available for their use. Equipment sharing eliminates the need to purchase a dedicated unit for any given provider. However, if the hospital does decide to buy new equipment, the cost of this asset can be defrayed by making it available to multiple hospitals within the network.

Capture additional case volume with robotic surgical equipment

Patients are increasingly seeking care at hospitals that offer minimally invasive surgeries with robotic surgical equipment. Due to the cost of this equipment, and the need for specialized training on its use, the number of facilities with access to these assets is limited. With sharing, hospitals can advertise robotic surgical equipment to acquire new patients, and doctors have the option to leverage this equipment in their practice.

How to get started with an equipment sharing program

Moving equipment within your system

Within a health system, equipment can be shared between facilities that are within 200 miles of one another, including hospitals, ambulatory surgery centers, and medical office buildings, with adjacent geographic regions creating “sharing zones”. There are four types of equipment moves:

- **Milk route** – a milk route is when a piece of equipment travels on a fixed schedule for each day of the week. These types of moves are used for block scheduling, when the same doctor will need a shared unit on a predictable schedule
- **Dynamic** – dynamic moves are used for equipment that is part of a sharing ecosystem, based on the changing needs of the operating room schedule. There is no fixed move schedule, with equipment moving from facility to facility, optimizing the utilization to reduce idle days
- **Single round trip** – a single round trip move is when equipment is borrowed for an emergency, such as a unit breaking within a hospital. For these types of moves, equipment is returned shortly after its use
- **Permanent reallocation** – occasionally, equipment with large swathes of idle capacity will be housed at another facility for an extended time period

The best service lines for sharing

When selecting equipment for sharing, focusing on a single service line across a broad facility base rapidly creates the liquidity necessary to realize savings and optimize utilization at scale. While there are multiple service lines that can benefit from a sharing program, the best specialties to begin equipment sharing are:

- Urology
- Orthopedics
- Head & Neck

How to select equipment

Transporting sensitive and expensive equipment is inherently risky. Minimizing that risk responsibly and consistently is critical to a successful sharing initiative. That begins by determining which equipment is the easiest to share relative to the value and anticipated cost savings. These questions can help you determine the best equipment targets for sharing, based on their ease of movement.

1. What is the size and weight of the equipment?
2. Does the equipment have wheels?
3. How susceptible is the equipment to damage from movement and/or vibration?
4. Does the equipment require calibration when moved?
5. Does equipment contain personal healthcare information on the device?
6. Does the equipment contain any hazardous or volatile substances (e.g. nuclear material that cannot be moved without additional paperwork)?

The process for safely moving medical equipment

Step 1: Preparing equipment to be moved

Before a piece of equipment is signed out of an operating room and secured in a truck for transportation to another facility, the mover must evaluate each asset's movability by taking note of attachments and peripherals, and any other presenting factors such as equipment positioning that could be adversely affected during transport.

Step 2: Third-party movability analysis

An independent third-party biomedical engineering company evaluates each piece of equipment to determine the types of risks associated with moving individual pieces and categories of equipment. This independent analysis identifies issues such as hazardous materials (e.g. radioactive material in imaging equipment), applicable regulations about moving or transferring equipment, equipment susceptible to retaining personal healthcare information, and physical sensitivity (e.g. surgical microscopes requiring calibration). Not every piece of equipment should be shared, and this analysis is critical in surfacing any risks that might exist.

Step 3: Determining what equipment needs specialized crating

Certain categories of equipment are well suited to custom designed, reusable crating solutions. Crate use eliminates variability in packaging, which reduces the likelihood of damage due to a piece of equipment being packed or secured incorrectly. Frequently shared pieces can be transported easily and safely, with minimal risk, despite a high volume of moves. Surgical lasers are an example of an equipment category for which wheeled and padded crates are especially effective.

Step 4: Training and implementation within each facility

To get started, each facility must define the set of sharable equipment, determine exchange points, and assign specific equipment "owners", who will receive notifications each time a

piece of equipment is reserved by another facility. Hospitals record facility information such as: access points during and after opening hours, locations of critical functions (e.g. sterile process and biomed), and planned travel paths within and between buildings on a campus. Personnel that must be trained include biomeds, OR nurses, schedulers and the OR director. Most of these individuals will not be involved in the logistics or day-to-day operating of sharing equipment, but it is critical to ensure they understand the protocols.

Step 5: Inventory tagging

During initial implementation at a new facility, and periodically thereafter, a physical inventory of the facility's sharable surgical assets must be maintained. This includes photographing and physically tagging each piece of equipment with a 3D barcode tag, as well as recording the serial number, facility asset tag number, and other identifying features of the specific unit. To begin this process, Cohealo uses any pre-existing inventory records (e.g. from clintech, finance, supply chain, or other responsible entities). Because surgical assets have a finite life, the tagging process must be updated on a yearly basis, adding new acquisitions and removing assets that have been retired or sold.

Step 6: Standard mobilization procedures

Standard Mobilization Procedures (SMPs) define the specific handling practices for various categories of equipment. Transportation personnel use these procedures to ensure that equipment is handled correctly throughout each move. SMPs may document how a piece of equipment is to be physically wheeled down a hallway, particular features of a piece of equipment, how equipment is to be packaged, and how equipment is to be secured inside a vehicle.

Step 7: Specialized carriers – selection, training, and auditing

A critical element of the sharing process is the selection and training of transportation partners. Hospitals can either use their in-house transportation fleets or local carriers who specialize in moving sensitive, valuable, and cumbersome equipment. Ideally, carriers are familiar with the customer's facilities and regularly move medical equipment. After selection, carriers and drivers are trained on the equipment sharing processes, including: Standard Mobilization Procedures, communication practices, and the documentation for recording all elements of a move. Once a transportation partner has been trained and is active, moves are audited on a regular basis for quality control.

The most commonly shared medical equipment

Urology

- ✓ Surgical ablation systems
- ✓ Surgical monitoring systems (NIMS)
- ✓ Endoscopic ultrasounds
- ✓ Lithotripters
- ✓ Surgical lasers (Greenlight, KTP, etc.)

Orthopedics

- ✓ Navigation systems (Stealth, S7)
- ✓ Ortho/spine tables (Jackson, Hana, Trio)
- ✓ Surgical robots (Mako, Navio)
- ✓ Surgical drills & instruments (Stryker, Midas etc.)

Head and Neck

- ✓ Ultrasounds, portable x-rays
- ✓ C-Arms and Mini C-Arms
- ✓ Surgical microscopes (ENT, Ophthalmology)
- ✓ Phacoemulsification systems

Other Commonly Shared Equipment

- ✓ Specialty beds and surfaces
- ✓ Towers and scopes (EUS, EBUS)
- ✓ Electrosurgical units, radio frequency generators

To learn more about starting an equipment sharing program, contact Cohealo at info@cohealo.com or call 855.692.6432