



Driving Ambulatory Surgery Center (ASC) Success with Powerful Digital Health Solutions

*Unlocking Operational
Excellence and Patient-
Centric Care for ASCs
through Cutting-Edge
Healthcare Technology*

Overview

Overview.....	2
Introduction	4
Review of Key ASC Challenges	5
1. Reducing Post-Op Hospitalizations	5
2. Eliminating Preventable Cancellations.....	6
3. Improving Patient Pre-Op Education & Preparations	7
4. Streamlining ASC Operations and Workflows.....	7
5. Enhancing Patient Engagement and Satisfaction	8
6. Optimizing Post-Operative Care and Follow-Up	9
7. Leveraging Data Analytics for Decision-Making.....	10
1. Reducing Post-Operative Readmissions	11
Digital Health Strategies to Reduce Hospitalizations	11
2. Eliminating Preventable Surgery Cancellations.....	14
Digital Tools to Mitigate Cancellations	15
Best Practices for Implementing Digital Tools	17
3. Improving Patient Pre-Op Education & Preparations	19
Importance of Patient Education and Preparation	19
Digital Resources for Patient Education.....	20
Measuring the Impact of Digital Education on Outcomes.....	22
Leveraging Digital Health for Patient Education	23
4. Streamlining ASC Operations and Workflows	25
Digital Health Solutions for Operational Efficiency.....	26
Leveraging Healthcare Tech to Streamline Operations	28
5. Enhancing ASC Patient Engagement and Satisfaction	30
Role of Patient Engagement in ASC Success.....	30
Technological Solutions for Boosting Engagement	31
Impact on Patient Satisfaction and Loyalty	33
Leveraging Digital Health for Patient Engagement & Satisfaction	34

- 6. Optimizing Post-Operative Care and Follow-Up35
 - Post-Operative Care Challenges35
 - Digital Tools for Better Follow-Up Care36
 - Leveraging Digital Health for Post-Op Care.....38
- 7. Leveraging Data Analytics for Decision-Making.....39
 - Digital Health Data Analytics Tools.....40
 - Implementing Data-Driven Strategies in ASCs.....42
- Emerging Trends in Digital Health44
 - Artificial Intelligence and Machine Learning44
 - Blockchain for Health Data Security.....45
 - Advanced Telemedicine Capabilities46
 - Future Outlook and Potential Impact on ASCs.....47
- Utilize Power Tools for ASC Growth and Success.....49
- References51
- Info.....54
 - About Calcium LLC.....54
 - Learn More About the Calcium Digital Health Solution for Ambulatory Surgery Centers and Their Patients54

Introduction

Digital health encompasses a wide range of technologies designed to improve the delivery of healthcare. From telemedicine and remote patient monitoring to AI-driven analytics and mobile health apps, digital health tools are revolutionizing how we approach medical care. But what does this mean for ambulatory surgery centers (ASCs)?

ASCs are uniquely positioned to benefit from digital health innovations. Unlike traditional hospitals, ASCs focus on providing outpatient surgical care, which means efficiency and patient experience are paramount.

Digital health technologies can help ASCs by...

- **Reducing Preventable Hospitalizations.**
Remote patient monitoring and health apps can track patients' recovery in real-time, allowing for early intervention if complications arise.
- **Eliminating Preventable Cancellations.**
Automated scheduling and pre-operative health assessments can ensure patients are well-prepared for their procedures.
- **Enhancing Patient Education and Preparation.**
Interactive modules and app-based checklists can help patients understand their procedures and recovery plans.

Incorporating these technologies into your ASC can lead to significant improvements in both operational efficiency and patient outcomes.

Review of Key ASC Challenges

Surgical centers are vital to the healthcare ecosystem, providing patients with a more convenient and cost-effective option for surgical procedures. However, running a successful ASC comes with its own set of challenges.

This section explores seven key problem areas where digital health solutions can make a significant impact, helping ASCs operate more efficiently and enhance patient care.

1. Reducing Post-Op Hospitalizations

One of the biggest challenges for ASCs is managing post-operative care to minimize hospital readmissions, particularly when such hospitalizations are largely avoidable. Preventable hospitalizations not only strain the healthcare system but also indicate potential gaps in patient care.

Digital health solutions can play a crucial role in addressing this issue:

- **Remote Patient Monitoring (RPM).** By utilizing RPM tools, ASCs can monitor patients' vital signs and recovery progress in real-time. Devices like wearable sensors can alert healthcare providers to any abnormalities, enabling timely interventions.
- **Health Monitoring Apps.** Mobile apps can track symptoms, medication adherence, and overall patient well-being. These apps often include features for patients to communicate directly with their care team, ensuring continuous support.
- **AI-Driven Predictive Analytics.** Artificial intelligence can analyze patient data to predict

potential complications before they occur. This proactive approach allows for early intervention, reducing the likelihood of readmissions.

Implementing these digital tools not only improves patient outcomes but also enhances the overall efficiency of post-operative care.

2. Eliminating Preventable Cancellations

Cancellations are a significant pain point for ASCs, leading to lost revenue and wasted resources. Many cancellations are preventable, and digital health solutions can help address this problem effectively:

- **Automated Scheduling and Reminders.** Digital platforms can manage appointments and send automated reminders to patients, reducing no-shows. These systems can also confirm patient readiness for surgery by checking their pre-operative requirements.
- **Pre-Operative Health Assessments.** Telehealth consultations and mobile assessments allow healthcare providers to evaluate patients' health status before surgery. This ensures that patients are adequately prepared and reduces the risk of last-minute cancellations.
- **Patient Engagement Platforms.** Interactive platforms can educate patients about the importance of their surgery and preparation steps, increasing their commitment to the scheduled procedure.

By leveraging these tools, ASCs can minimize disruptions and optimize their surgical schedules.

3. Improving Patient Pre-Op Education & Preparations

Patient education is crucial for successful surgical outcomes. When patients understand their procedures and what to expect, they are more likely to comply with pre- and post-operative instructions, leading to better results.

- **Interactive Educational Modules.** Digital health platforms can offer interactive content, such as videos and quizzes, to educate patients about their procedures. This engaging format ensures that patients retain the information better.
- **App-Based Preparation Checklists.** Mobile apps can provide personalized checklists for patients, guiding them through pre-operative steps and ensuring they are fully prepared on the day of surgery.
- **Virtual Reality Simulations.** Some advanced digital health tools use virtual reality to simulate the surgical experience, helping patients feel more comfortable and reducing anxiety.

These educational tools empower patients with the knowledge they need to participate actively in their care, improving overall outcomes.

4. Streamlining ASC Operations and Workflows

Efficient operations are the backbone of a successful ASC. Digital health solutions can streamline workflows, reduce administrative burdens, and enhance communication within the ASC team.

- **Electronic Health Records (EHR) Integration.** EHR systems consolidate patient information, making it easily accessible to all relevant staff. This integration reduces paperwork and minimizes errors.
- **Workflow Automation Tools.** Automated systems can handle routine administrative tasks, such as patient intake and discharge processes, allowing staff to focus on patient care.
- **Real-Time Communication Platforms.** Digital communication tools enable instant messaging and coordination among healthcare providers, ensuring everyone is on the same page.

By adopting these technologies, ASCs can improve efficiency and provide higher-quality care to their patients.

5. Enhancing Patient Engagement and Satisfaction

Engaged patients are more likely to have positive healthcare experiences and better outcomes. Digital health tools can foster stronger connections between patients and their care teams, enhancing satisfaction:

- **Patient Portals.** These secure online platforms allow patients to access their medical records, communicate with their providers, and manage appointments, fostering transparency and trust.
- **Mobile Health Apps.** Apps designed for patient engagement can offer personalized health tips, reminders, and progress tracking, keeping patients motivated and informed.

- **Personalized Communication Channels.** Tailored messaging and support through email, SMS, or app notifications can make patients feel valued and supported throughout their care journey.

Enhancing patient engagement through these tools can lead to higher satisfaction rates and better adherence to treatment plans.

6. Optimizing Post-Operative Care and Follow-Up

Effective follow-up care is essential to prevent complications and ensure a smooth recovery. Digital health solutions can provide continuous support and monitoring for patients after they leave the ASC:

- **Telehealth Consultations.** Virtual follow-up visits allow patients to connect with their surgeons without the need for travel, making post-operative care more convenient and accessible.
- **Follow-Up Care Management Apps.** These apps can schedule follow-up appointments, send medication reminders, and track recovery progress, ensuring patients stay on track.
- **Wearable Health Devices.** Devices like smartwatches and fitness trackers can monitor vital signs and activity levels, providing valuable data to healthcare providers and alerting them to potential issues.

These tools ensure that patients receive the necessary care and support during their recovery, reducing the risk of complications.

7. Leveraging Data Analytics for Decision-Making

Data-driven decision-making is crucial for optimizing ASC operations and improving patient outcomes. Digital health solutions provide powerful analytics tools that can transform raw data into actionable insights:

- **Predictive Analytics.** By analyzing historical data, predictive analytics can forecast patient outcomes and identify potential risks, enabling proactive care.
- **Performance Dashboards.** These tools offer real-time insights into key performance metrics, such as patient flow, resource utilization, and financial performance, helping ASC leaders make informed decisions.
- **Outcome Tracking Systems.** Tracking patient outcomes over time allows ASCs to measure the effectiveness of their interventions and identify areas for improvement.

Leveraging these analytics tools can help ASCs stay ahead of the curve and continuously enhance their operations and patient care.

1. Reducing Post-Operative Readmissions

Post-operative hospitalizations are a significant challenge for Ambulatory Surgery Centers. Not only do they strain healthcare resources, but they also indicate potential lapses in patient care.

For patients, it often means a longer recovery period, increased medical expenses, and the stress of being readmitted to the hospital. For ASCs, these hospitalizations can lead to increased costs, strained resources, and potential damage to the center's reputation.

One of the primary challenges in managing post-operative care is ensuring that patients adhere to their recovery plans. Non-compliance with medication, lack of follow-up appointments, and not reporting early signs of complications can all lead to preventable hospitalizations. Additionally, some complications might not be immediately apparent, making continuous monitoring essential.

The implications are clear: preventable hospitalizations can result in higher healthcare costs and poorer patient outcomes. Therefore, ASCs must adopt effective strategies to monitor patients post-operatively and intervene promptly when necessary.

Digital Health Strategies to Reduce Hospitalizations

Digital health solutions offer innovative ways to monitor patients and reduce the risk of post-operative complications. Let's dive into three key strategies: Remote Patient Monitoring (RPM), health monitoring apps, and AI-driven predictive analytics.

Remote Patient Monitoring (RPM)

Imagine having a virtual nurse that keeps an eye on patients even after they leave the ASC. That's essentially what Remote Patient Monitoring (RPM) does.

RPM involves the use of wearable devices that track patients' vital signs, such as heart rate, blood pressure, and oxygen levels, in real-time. These devices transmit data to healthcare providers, who can monitor patients' recovery remotely.

For instance, a patient recovering from knee surgery could wear a device that tracks their mobility and pain levels. If the device detects any abnormalities, such as decreased mobility or increased pain, it can alert the healthcare provider, who can then intervene before the situation worsens.

Health Monitoring Apps

In the age of smartphones, health monitoring apps are becoming an integral part of post-operative care. These apps allow patients to log their symptoms, medication adherence, and overall well-being daily. They can also send reminders for medication, follow-up appointments, and even physical therapy exercises.

Health monitoring apps can act as a bridge between patients and their healthcare providers.

For example, the Calcium perioperative solution includes a patient app that continually guides the patient everyday throughout the pre- and post-op process. The app's personalized pathways can provide medication reminders, as well as links to educational resources and prompts for feedback on how the patient's recovery is progressing.

If a patient reports increasing pain, swelling or other complications through the app, the healthcare team can quickly respond with appropriate advice or schedule an in-person check-up. This immediate feedback loop helps catch potential complications early, reducing the need for hospital readmissions.

AI-Driven Predictive Analytics

Artificial Intelligence (AI) has the potential to revolutionize post-operative care. AI-driven predictive analytics can analyze large datasets to identify patterns and predict potential complications before they occur.

By leveraging machine learning algorithms, healthcare providers can assess the risk of hospital readmissions for each patient and tailor their care plans accordingly.

For instance, AI can analyze a patient's medical history, surgery details, and recovery progress to predict the likelihood of complications such as infections or blood clots. This predictive capability enables healthcare providers to implement preventive measures, such as closer monitoring or additional medication, thereby reducing the risk of hospitalizations (Ghassemi et al., 2018).

2. Eliminating Preventable Surgery Cancellations

Surgery cancellations are a significant issue for Ambulatory Surgery Centers (ASCs), leading to wasted resources, frustrated patients, and lost revenue. By understanding the common causes of preventable cancellations and leveraging digital tools, ASCs can drastically reduce these occurrences.

Surgery cancellations can occur for various reasons, many of which are preventable with proper planning and communication. Here are some of the most common causes:

1. **Patient Non-Compliance.** Patients may fail to follow pre-operative instructions, such as fasting or discontinuing certain medications, leading to cancellations on the day of surgery.
2. **Scheduling Conflicts.** Miscommunication or errors in scheduling can result in patients arriving at the wrong time or date, causing unnecessary cancellations.
3. **Incomplete Pre-Operative Assessments.** Without thorough pre-operative assessments, issues such as undiagnosed health conditions or incomplete lab results can arise, forcing last-minute cancellations.
4. **Financial or Insurance Issues.** Patients may encounter unexpected financial or insurance-related problems that prevent them from proceeding with the surgery.

Understanding these causes is the first step toward implementing effective digital solutions that can help eliminate preventable surgery cancellations.

Digital Tools to Mitigate Cancellations

Digital health tools offer innovative solutions to address the root causes of surgery cancellations. By integrating these technologies into ASC operations, centers can enhance communication, streamline processes, and ensure patients are well-prepared for their procedures.

Automated Scheduling and Reminders

Imagine having a personal assistant who never forgets an appointment and always reminds you of important tasks. That's what automated scheduling and reminder systems do for ASCs.

These tools can send patients timely reminders about their surgery dates, pre-operative instructions, and necessary preparations. Automated systems can reduce the likelihood of patient non-compliance and scheduling conflicts by ensuring that patients are well-informed and reminded at appropriate intervals.

For example, an ASC can use an automated reminder system, such as the Calcium perioperative solution, to send messages to patients, reminding them to fast before surgery or to arrive at a specific time. These reminders can be personalized and scheduled to go out at optimal times to ensure patients receive the information when they need it most.

As the scheduled procedure approaches, the app can increasingly check for the patient's vitals, as well as provide frequent reminders on how the patient must prepare for the procedure. The day before the procedure, the Calcium app can also provide additional prompts to follow fasting requirements, as prescribed, as well as reminders about when and where to check in for their procedure.

Pre-Operative Health Assessments via Apps

Health assessment apps can play a crucial role in reducing cancellations due to incomplete pre-operative evaluations. These apps allow patients to complete detailed health questionnaires, submit lab results, and communicate with their healthcare providers from the comfort of their homes.

By ensuring that all necessary pre-operative assessments are completed well in advance, ASCs can minimize the risk of last-minute cancellations due to unforeseen health issues.

For instance, a pre-operative assessment app can guide patients through a series of questions about their medical history, current medications, and any recent health changes. The app can flag potential issues for the healthcare team to review and address before the surgery date. This proactive approach helps identify and resolve problems early, reducing the likelihood of cancellations.

Patient Engagement Platforms

Patient engagement platforms provide a comprehensive solution to enhance patient communication and involvement throughout the surgical journey. These platforms can include educational resources, interactive checklists, and communication tools that keep patients informed and engaged.

By offering easy access to information and support, patient engagement platforms can help patients feel more confident and prepared for their surgeries. They can access educational videos, read articles about their procedures, and use interactive checklists to ensure they complete all necessary steps before surgery.

Additionally, these platforms often include messaging features that allow patients to ask questions and receive prompt responses from their healthcare team.

For example, a patient engagement platform might include a pre-operative checklist that patients can follow to ensure they complete all necessary preparations. The checklist could include tasks such as arranging transportation, fasting instructions, and confirming financial arrangements.

By providing clear guidance and support, these platforms can help reduce the anxiety and confusion that often lead to cancellations.

Best Practices for Implementing Digital Tools

With the right approach, ASCs can significantly reduce cancellations and provide a smoother, more efficient surgical experience for their patients:

1. **Choose the Right Technology.** Select digital tools that align with your ASC's needs and patient demographics. Ensure the technology is user-friendly and accessible to all patients.
2. **Provide Training and Support.** Train staff in how to use the new digital tools effectively. Offer support to patients to help them navigate the technology and address any concerns.
3. **Monitor and Evaluate.** Regularly monitor the effectiveness of the digital tools and gather feedback from patients and staff. Use this feedback to make necessary adjustments and improvements.
4. **Communicate Clearly.** Ensure patients understand the benefits of the digital tools and how to use them. Provide clear instructions and support to encourage adoption and compliance.

Eliminating preventable surgery cancellations is crucial for improving ASC efficiency, patient satisfaction, and financial performance.

By leveraging digital tools such as automated scheduling and reminders, pre-operative health assessment apps, and patient engagement platforms, ASCs can address the common causes of cancellations and ensure patients are well-prepared for their surgeries.

3. Improving Patient Pre-Op Education & Preparations

Patient education and preparation are cornerstones of successful surgical outcomes. When patients understand their procedures and know what to expect, they are more likely to comply with pre- and post-operative instructions, reducing the risk of complications and cancellations.

Importance of Patient Education and Preparation

Imagine going on a long trip without a map or GPS. You'd feel lost, anxious, and unprepared. The same feeling can overwhelm patients facing surgery.

Proper education can demystify the process, reduce anxiety, and empower patients to participate actively in their care.

On the other hand, educated patients are more likely to...

- Follow pre-operative instructions (like fasting or medication adjustments)
- Recognize and report symptoms promptly
- Adhere to post-operative care plans
- Experience lower anxiety levels, leading to smoother recoveries

A well-prepared patient not only improves their own outcomes but also enhances the efficiency and effectiveness of the surgical center.

Digital Resources for Patient Education

Digital health technology offers a plethora of resources to ensure patients are well-educated and prepared for their procedures. These tools can transform the patient's experience, making complex medical information accessible and engaging.

Interactive Educational Modules

Interactive modules are like guided tours through the surgical process. These online tools can break down complex information into manageable chunks, using text, images, quizzes, and interactive activities. Patients can learn at their own pace and revisit information as needed.

For example, a module on knee replacement surgery might include:

- An overview of the procedure
- Detailed animations showing the steps of the surgery
- Interactive quizzes to test understanding
- Tips for pre- and post-operative care

These modules make learning engaging and ensure patients retain crucial information.

Video Tutorials and Virtual Reality Simulations

Video tutorials are another powerful educational tool. They offer a visual and auditory way for patients to learn about their procedures. Videos can cover everything from pre-operative preparations to what to expect on the day of surgery and post-operative care instructions.

Taking it a step further, virtual reality (VR) simulations can immerse patients in a virtual environment where they can explore the surgical process firsthand. VR can be particularly effective for patients who are anxious about surgery, providing them with a virtual walk-through of the procedure to alleviate fears and build confidence.

Imagine a patient putting on a VR headset and experiencing a virtual tour of the operating room. They can see the equipment, meet the surgical team, and understand each step of the procedure. This immersive experience can significantly reduce anxiety and improve readiness.

App-Based Preparation Checklists

Preparation checklists are vital for ensuring patients complete all necessary steps before surgery. Apps can provide dynamic, interactive checklists that guide patients through each requirement. These checklists can be personalized and updated in real-time, ensuring that patients receive the most accurate and relevant information.

For instance, an app might remind a patient to...

- Arrange transportation to and from the surgery center
- Fast for a specified period
- Complete any necessary pre-operative tests or lab work
- Bring important documents and medications on the day of surgery

These app-based checklists ensure nothing is overlooked, reducing the risk of last-minute

cancellations due to incomplete preparations (Hibbard & Greene, 2013).

Measuring the Impact of Digital Education on Outcomes

How do we know if these digital educational tools are making a difference? Measuring their impact is crucial to understand their effectiveness and improve them over time. Here are some ways to assess their success

Patient Satisfaction Surveys

After implementing digital education tools, patient satisfaction surveys can provide valuable feedback. These surveys can ask patients about their experiences with the educational materials, how well they understood their procedures, and their overall satisfaction with the preparation process.

Questions might include:

- How helpful did you find the interactive modules?
- Did the video tutorials make you feel more prepared for your surgery?
- How easy was it to use the app-based checklists?

Positive feedback can confirm the tools' effectiveness, while constructive criticism can highlight areas for improvement.

Compliance Rates

Tracking patient compliance with pre- and post-operative instructions is another way to measure the impact of digital education. Higher compliance rates

typically correlate with better patient education and preparation.

For example, if an ASC notices that more patients are following fasting instructions and arriving on time for their surgeries, this improvement can likely be attributed to effective digital education tools.

Health Outcomes

Ultimately, the success of patient education tools can be measured by health outcomes. This includes lower rates of post-operative complications, reduced hospital readmissions, and shorter recovery times.

By comparing health outcomes before and after implementing digital education tools, ASCs can quantify their impact.

For instance, a study could compare the rate of post-operative infections or complications in patients who used the digital tools versus those who did not. Significant improvements in these metrics would indicate the effectiveness of the educational interventions (Fischer et al., 2018).

Leveraging Digital Health for Patient Education

Improving health education and preparation for ASC patients through digital tools is a game-changer. Interactive educational modules, video tutorials, VR simulations, and app-based preparation checklists can transform the patient's experience, ensuring they are well-informed and prepared for their procedures.

Measuring the impact of these tools through patient satisfaction surveys, compliance rates, health outcomes,

and case studies provides valuable insights and confirms their effectiveness.

By embracing these digital resources, ASCs can enhance patient education, reduce anxiety, improve compliance, and ultimately achieve better surgical outcomes. The investment in digital health technology pays off through improved patient satisfaction and operational efficiency, making it a win-win for both patients and healthcare providers.

4. Streamlining ASC Operations and Workflows

Running an Ambulatory Surgery Center (ASC) smoothly can often feel like juggling multiple balls at once. With the right digital health solutions, though, streamlining operations and workflow becomes much more manageable.

ASCs are designed to offer patients convenient and efficient outpatient surgical care. However, achieving this efficiency comes with its own set of challenges:

1. **Complex Scheduling.** Coordinating surgeries, staff, and operating rooms can be a logistical nightmare. Any error can lead to delays, cancellations, and dissatisfied patients.
2. **Paperwork Overload.** Traditional paper-based records are time-consuming to manage and prone to errors. Searching for patient files or manually entering data eats up valuable time.
3. **Communication Gaps.** Effective communication among staff is crucial. Miscommunication can lead to mistakes, redundant tasks, and compromised patient safety.
4. **Resource Management.** Balancing the availability of surgical equipment, operating rooms, and staff is essential to maintain smooth operations and minimize downtime.
5. **Regulatory Compliance.** Keeping up with healthcare regulations and ensuring compliance is an ongoing challenge that requires meticulous record-keeping and reporting.

Addressing these challenges is critical for improving efficiency, patient satisfaction, and overall outcomes in ASCs.

Digital Health Solutions for Operational Efficiency

Digital health solutions offer a range of tools to tackle these operational challenges head-on. Let's explore three key solutions: Electronic Health Records (EHR) integration, workflow automation tools, and real-time communication platforms.

Electronic Health Records (EHR) Integration

Think of EHRs as the digital backbone of modern healthcare operations. Integrating EHR systems can transform how ASCs manage patient information and streamline workflows.

Here's how EHR integration can help:

- **Centralized Patient Information.** EHRs provide a single, centralized repository for all patient data. This ensures that every staff member has access to up-to-date information, reducing the time spent searching for records and minimizing errors.
- **Automated Documentation.** EHR systems can automate many documentation tasks, such as updating patient records and generating reports. This not only saves time but also ensures accuracy and compliance with regulatory standards.
- **Seamless Data Sharing.** EHRs enable seamless sharing of patient information among healthcare providers, improving coordination of care and

reducing the risk of duplicate tests and procedures (King et al., 2014).

For example, if a patient has a pre-existing condition that could affect their surgery, the EHR can flag this information and alert the surgical team, ensuring they are fully prepared.

Workflow Automation Tools

Workflow automation tools are like having a highly efficient personal assistant for your ASC. These tools can streamline various administrative and clinical processes, allowing staff to focus more on patient care.

Key benefits include:

- **Automated Scheduling.** Automated scheduling systems can coordinate surgeries, staff shifts, and operating room availability. They can also send reminders to patients and staff, reducing the risk of scheduling conflicts and no-shows.
- **Task Management.** Automation tools can manage routine tasks such as patient check-ins, pre-operative instructions, and post-operative follow-ups. This ensures that every step is completed on time and nothing falls through the cracks.
- **Inventory Management.** These tools can monitor surgical supplies and equipment, alerting staff when stocks are low or maintenance is needed. This prevents delays due to equipment shortages or failures.

Real-Time Communication Platforms

Effective communication is the lifeblood of any successful healthcare facility. Real-time communication platforms ensure that all team members are on the same page, enhancing coordination and patient safety.

Here's how they help:

- **Instant Messaging.** Staff can use secure messaging apps to communicate in real-time, reducing delays and ensuring that critical information is shared promptly.
- **Collaboration Tools.** Platforms that include features like group chats, file sharing, and task assignments can enhance teamwork and ensure that everyone knows their responsibilities.
- **Emergency Alerts.** Real-time communication platforms can send instant alerts in case of emergencies, ensuring a quick and coordinated response.

For instance, if a patient experiences an unexpected complication during surgery, the surgical team can instantly communicate with the on-call anesthesiologist or specialist, ensuring a swift and effective response.

Leveraging Healthcare Tech to Streamline Operations

Streamlining ASC operations and workflows with digital health solutions is essential for improving efficiency, patient satisfaction, and overall outcomes.

EHR integration provides a centralized, automated approach to managing patient information, reducing errors and saving time. Workflow automation tools ensure that routine tasks are completed efficiently,

freeing up staff to focus on patient care. Real-time communication platforms enhance coordination and ensure that critical information is shared promptly.

By adopting these digital health solutions, ASCs can overcome operational challenges, optimize resource management, and provide high-quality care to their patients.

5. Enhancing ASC Patient Engagement and Satisfaction

Patient engagement and satisfaction are crucial components of success for Ambulatory Surgery Centers (ASCs). Engaged patients are more likely to comply with their care plans, experience better health outcomes, and remain loyal to their healthcare providers.

Role of Patient Engagement in ASC Success

Why is patient engagement so important? Think of it like a partnership.

When patients actively participate in their care, they are more likely to follow medical advice, keep appointments, and communicate openly with their healthcare team. This collaborative approach leads to improved health outcomes and a more efficient healthcare system.

Engaged patients are more likely to...

- Follow pre- and post-operative instructions
- Report symptoms and complications early
- Attend follow-up appointments
- Express satisfaction with their care

For ASCs, high patient engagement can translate to fewer cancellations, lower readmission rates, and better overall performance. It fosters trust and communication, which are essential for successful surgical outcomes.

Technological Solutions for Boosting Engagement

Digital health technologies offer a variety of tools to enhance patient engagement. By leveraging these technologies, ASCs can provide personalized, convenient, and interactive experiences that keep patients informed and involved in their care.

Patient Portals

Patient portals are secure online platforms that give patients access to their health information. These portals can serve as a one-stop-shop for all things related to a patient's care, including:

- Medical records and test results
- Appointment scheduling and reminders
- Pre- and post-operative instructions
- Communication with healthcare providers

Imagine a patient who can log into a portal to view their surgery details, check lab results, and send a quick message to their surgeon with any questions. This level of access and communication can significantly enhance the patient's experience.

Patient portals empower patients by giving them control over their health information. They can review their medical history, track their progress, and stay informed about their care plan. This transparency builds trust and encourages active participation.

Mobile Health Apps

In today's smartphone-driven world, mobile health apps are an effective way to engage patients. These apps can offer a range of features designed to support patients throughout their surgical journey:

- **Personalized Reminders.** Apps can send reminders for medication, appointments, and pre-operative preparations, ensuring patients stay on track.
- **Educational Resources.** Patients can access videos, articles, and interactive content about their procedures and recovery.
- **Symptom Tracking.** Apps can allow patients to log symptoms and monitor their recovery, providing valuable data for their healthcare providers.

For example, a mobile app might send a reminder the night before surgery to fast and avoid certain medications. It could also offer a series of educational videos explaining what to expect during recovery. These tools make it easier for patients to follow instructions and feel prepared for their surgery (Dennison, Morrison, Conway, & Yardley, 2013).

Personalized Communication Channels

Personalized communication is key to building strong patient-provider relationships. Digital tools can facilitate personalized interactions that make patients feel valued and supported:

- **Email and SMS Notifications.** Tailored messages can provide patients with important updates, reminders, and motivational support.

- **Secure Messaging.** Platforms that offer secure messaging allow patients to ask questions and receive timely responses from their healthcare team.
- **Telehealth Consultations.** Virtual visits can offer convenient access to care, especially for follow-up appointments and minor concerns.

Consider a patient who receives a personalized email with detailed instructions for post-operative care, along with motivational tips to aid recovery. If they have questions, they can send a secure message to their nurse and get a quick response. This level of personalized communication can enhance the patient's experience and reduce anxiety.

Impact on Patient Satisfaction and Loyalty

Engaging patients through digital health solutions not only improves their experience but also has a positive impact on satisfaction and loyalty. When patients feel informed, supported, and connected to their healthcare providers, they are more likely to express high levels of satisfaction and remain loyal to the ASC.

Improved Health Outcomes

Engaged patients are more likely to adhere to their care plans, leading to better health outcomes.

For example, patients who receive timely reminders about medication and follow-up appointments are less likely to experience complications and more likely to recover smoothly. This leads to higher satisfaction with their care.

Enhanced Patient Experience

Providing easy access to information and personalized support creates a positive patient experience.

When patients can easily communicate with their healthcare team and have access to their health information, they feel more in control and confident in their care. This positive experience fosters trust and satisfaction.

Increased Patient Loyalty

Satisfied patients are more likely to return to the same ASC for future procedures and recommend it to others. They become loyal advocates, sharing their positive experiences with friends and family.

This word-of-mouth promotion is invaluable for ASCs looking to build a strong reputation and attract new patients (Greene, Hibbard, Sacks, Overton, & Parrotta, 2015).

Leveraging Digital Health for Patient Engagement & Satisfaction

Enhancing patient engagement and satisfaction is essential for the success of ASCs. By leveraging digital health solutions such as patient portals, mobile health apps, and personalized communication channels, ASCs can create a more interactive, supportive, and transparent patient experience.

These technologies empower patients, improve health outcomes, and foster loyalty, ultimately leading to a more efficient and effective healthcare system.

6. Optimizing Post-Operative Care and Follow-Up

Effective post-operative care and follow-up are critical to ensuring positive surgical outcomes and patient satisfaction. Ambulatory Surgery Centers (ASCs) face unique challenges in managing post-operative care, but digital health tools offer innovative solutions to enhance this vital phase of patient care.

Post-Operative Care Challenges

Post-op care can be a complex process, involving multiple steps and coordination between patients and healthcare providers. Here are some common challenges faced by ASCs:

1. **Patient Compliance.** Ensuring that patients adhere to post-operative instructions, such as medication schedules and activity restrictions, can be difficult.
2. **Monitoring Recovery.** Without frequent check-ins, it's challenging to monitor patients' recovery and identify complications early.
3. **Communication Barriers.** Limited access to healthcare providers can leave patients feeling isolated and unsure about their recovery process.
4. **Timely Interventions.** Delayed identification of complications can lead to worsened outcomes and potentially readmissions.

Addressing these challenges is crucial for improving patient recovery and reducing the risk of complications.

Digital Tools for Better Follow-Up Care

Digital health tools offer innovative solutions to enhance post-operative care and follow-up. These tools can help ASCs monitor patients, ensure compliance, and provide timely interventions.

Telehealth Consultations

Telehealth consultations have become increasingly popular, offering a convenient way for patients to connect with their healthcare providers from the comfort of their homes. Here's how telehealth can improve post-operative care:

- **Convenience.** Patients can schedule virtual follow-up appointments, eliminating the need for travel and reducing the risk of infection.
- **Immediate Access.** Telehealth allows for immediate consultations if patients experience concerning symptoms, ensuring timely interventions.
- **Enhanced Communication.** Video calls provide a more personal interaction compared to phone calls or emails, helping patients feel more connected to their care team (Kruse et al., 2017).

Imagine a patient recovering from knee surgery who notices increased swelling. Instead of waiting for an in-person appointment, they can have a telehealth consultation the same day, allowing the healthcare provider to assess the situation and recommend appropriate action immediately.

Follow-Up Care Management Apps

Mobile apps designed for follow-up care management can greatly enhance patient compliance and monitoring. These apps typically offer features such as...

- **Medication Reminders.** Automated reminders ensure patients take their medications on time.
- **Symptom Tracking.** Patients can log their symptoms and progress daily, providing valuable data for healthcare providers.
- **Educational Resources.** Apps can provide educational content about recovery, helping patients understand what to expect and how to care for themselves.

For example, an app might remind a patient to take their pain medication and log their pain levels daily. This information can be shared with their healthcare provider, who can monitor their recovery and adjust the care plan as needed.

Wearable Health Devices

Wearable health devices, such as smartwatches and fitness trackers, offer continuous monitoring of vital signs and physical activity. These devices can provide real-time data that helps healthcare providers track patients' recovery more closely.

Key benefits include:

- **Real-Time Monitoring.** Devices can track heart rate, blood pressure, and physical activity, alerting healthcare providers to potential issues.
- **Activity Tracking.** Monitoring patients' activity levels can ensure they are following post-

operative activity guidelines and progressing in their recovery.

- **Data Sharing.** Wearables can sync with mobile apps, making it easy to share data with healthcare providers (Piwek et al., 2016).

Consider a patient recovering from heart surgery who wears a smartwatch to monitor their heart rate and activity. If the device detects an abnormal heart rate, it can alert the healthcare provider, who can then reach out to the patient for further assessment.

Leveraging Digital Health for Post-Op Care

Improving post-operative care and follow-up is essential for achieving positive surgical outcomes and enhancing patient satisfaction.

Digital health tools, such as telehealth consultations, follow-up care management apps, and wearable health devices, offer innovative solutions to address common post-operative care challenges. These tools enhance patient monitoring, ensure compliance, and provide timely interventions, ultimately leading to better recovery experiences and reduced complications.

By adopting these digital health solutions, ASCs can provide higher-quality care, improve patient outcomes, and build stronger relationships with their patients.

Embracing these advancements is not just about keeping up with technology; it's about transforming the way we care for patients and ensuring they receive the best possible support during their recovery journey.

7. Leveraging Data Analytics for Decision-Making

Data analytics has become an indispensable tool in modern healthcare, providing insights that drive better decision-making. This section will explore the importance of data in healthcare, highlight key digital health data analytics tools, and discuss strategies for implementing data-driven approaches in ASCs.

Think of data as the GPS for your ASC. Just as GPS provides real-time directions to help you navigate, data analytics offers insights that guide clinical and operational decisions. By leveraging data, ASCs can improve patient outcomes, streamline operations, and optimize resource utilization.

Key benefits of data in healthcare include:

- **Enhanced Patient Care.** Data analytics can identify trends and patterns, helping to predict and prevent complications.
- **Operational Efficiency.** Analyzing data can uncover inefficiencies and areas for improvement, leading to streamlined workflows.
- **Cost Reduction.** Data-driven strategies can reduce waste, optimize resource allocation, and ultimately lower costs.
- **Regulatory Compliance.** Data analytics helps ensure compliance with healthcare regulations by providing accurate and timely reporting.

Incorporating data analytics into your ASC's operations can transform how you deliver care and manage your facility.

Digital Health Data Analytics Tools

Several digital health data analytics tools can help ASCs harness the power of data. Let's explore three key tools: predictive analytics, performance dashboards, and outcome tracking systems.

Predictive Analytics

Predictive analytics uses historical data and machine learning algorithms to forecast future events. In the context of ASCs, predictive analytics can be a game-changer:

- **Risk Stratification.** Predictive models can identify patients at high risk for complications, enabling proactive interventions.
- **Resource Planning.** By forecasting patient volume and surgical schedules, ASCs can better allocate resources and staff.
- **Personalized Care.** Predictive analytics can tailor care plans to individual patients, improving outcomes and satisfaction.

For example, an ASC might use predictive analytics to identify patients at risk for post-operative infections. By flagging these patients early, the care team can implement preventive measures, reducing the likelihood of complications.

Performance Dashboards

Performance dashboards provide real-time visualizations of key metrics, helping ASCs monitor and manage their operations effectively:

- **Key Performance Indicators (KPIs).** Dashboards display KPIs such as surgical volume, patient wait

times, and resource utilization, offering a snapshot of the ASC's performance.

- **Trend Analysis.** By tracking performance over time, dashboards can highlight trends and identify areas for improvement.
- **Data-Driven Decisions.** Real-time data empowers ASC managers to make informed decisions quickly, improving operational efficiency (Dowding et al., 2015).

Imagine having a dashboard that displays the current status of all operating rooms, patient wait times, and staff availability. This real-time insight allows you to make adjustments on the fly, ensuring smooth operations and minimizing delays.

Outcome Tracking Systems

Outcome tracking systems monitor patient outcomes and provide insights into the effectiveness of treatments and interventions.

- **Quality of Care.** Tracking patient outcomes helps ASCs measure the quality of care provided and identify areas for improvement.
- **Patient Satisfaction.** Outcome data can reveal trends in patient satisfaction, guiding efforts to enhance the patient experience.
- **Benchmarking.** Comparing outcomes against industry benchmarks helps ASCs gauge their performance relative to peers.

For instance, an ASC might use an outcome tracking system to monitor post-operative recovery times and complication rates. By analyzing this data, the ASC can

identify best practices and areas needing attention, continuously improving patient care.

Implementing Data-Driven Strategies in ASCs

Now that we understand the importance of data and the tools available, how can ASCs implement data-driven strategies effectively? Here are some steps to get started:

1. **Define Your Goals.** Before diving into data analytics, it's essential to define your goals. What do you want to achieve with data analytics? Whether it's improving patient outcomes, enhancing operational efficiency, or reducing costs, having clear objectives will guide your efforts.
2. **Invest in the Right Tools.** Choosing the right analytics tools is crucial. Consider the specific needs of your ASC and select tools that align with your goals. Ensure that the tools you choose are user-friendly and integrate seamlessly with your existing systems.
3. **Train Your Team.** Implementing data-driven strategies requires a knowledgeable team. Provide training to your staff on how to use analytics tools and interpret data. Encourage a data-driven culture where decisions are based on insights rather than intuition.
4. **Collect and Clean Data.** Accurate data is the foundation of effective analytics. Ensure that you collect high-quality data and clean it regularly to remove any inaccuracies or inconsistencies. This step is vital for generating reliable insights.
5. **Analyze and Act.** Once you have the right tools and data, start analyzing. Use predictive analytics

to forecast trends, performance dashboards to monitor operations, and outcome tracking systems to measure patient care. Most importantly, use these insights to inform your decisions and take action.

6. **Continuously Improve.** Data analytics is an ongoing process. Continuously monitor your performance, measure the impact of your actions, and make adjustments as needed. This iterative approach ensures that you keep improving and stay ahead of the curve.

Leveraging data analytics for improved decision-making is essential for the success of ASCs. By utilizing tools such as predictive analytics, performance dashboards, and outcome tracking systems, ASCs can gain valuable insights that drive better patient care and operational efficiency.

Emerging Trends in Digital Health

As the healthcare landscape continues to evolve, ASCs are increasingly leveraging digital health technologies to enhance patient care and streamline operations. This section will explore the emerging trends in digital health that are particularly relevant to ASCs, including Artificial Intelligence (AI) and Machine Learning (ML), blockchain for health data security, and advanced telemedicine capabilities.

Digital health is transforming healthcare delivery, offering innovative solutions that improve efficiency and patient outcomes. Here are some of the most promising trends:

1. Artificial Intelligence and Machine Learning
2. Blockchain for Health Data Security
3. Advanced Telemedicine Capabilities

Artificial Intelligence and Machine Learning

AI and ML are revolutionizing healthcare by enabling data-driven decision-making and personalized care. For ASCs, these technologies can provide significant benefits:

- **Predictive Analytics.** AI algorithms can analyze historical data to predict patient outcomes, identify potential complications, and optimize resource allocation. For instance, predictive models can forecast which patients are at higher risk for post-operative complications, allowing for preemptive measures (Rajkomar, Dean, & Kohane, 2019).

- **Automated Workflows.** AI can automate administrative tasks such as scheduling, billing, and patient follow-ups. This reduces the administrative burden on staff and allows them to focus more on patient care.
- **Enhanced Diagnostics.** Machine learning models can assist in interpreting medical images and identifying anomalies that may be missed by the human eye. This can lead to more accurate diagnoses and better treatment plans.

Imagine having an AI-powered assistant that helps predict which surgeries might face complications or which patients need extra attention during recovery. This not only improves patient care but also enhances operational efficiency.

Blockchain for Health Data Security

Data security is paramount in healthcare, and blockchain technology offers a robust solution for securing health data. Here's how blockchain can benefit ASCs:

- **Enhanced Security.** Blockchain uses cryptographic techniques to create a secure and immutable ledger of health data. This ensures that patient information is protected from unauthorized access and tampering.
- **Improved Data Sharing.** Blockchain can facilitate secure data sharing between different healthcare providers. This is particularly useful for ASCs that need to coordinate care with hospitals and other medical facilities.
- **Transparency and Accountability.** Blockchain's transparent nature allows for better tracking of

data access and usage, enhancing accountability and trust among patients and providers.

Consider blockchain as a digital vault that securely stores and manages patient data, making it accessible only to authorized personnel. This ensures that sensitive information remains confidential and protected.

Advanced Telemedicine Capabilities

Telemedicine has grown rapidly, especially during the COVID-19 pandemic, and continues to offer new possibilities for ASCs:

- **Virtual Consultations.** Advanced telemedicine platforms enable virtual pre-operative and post-operative consultations, reducing the need for in-person visits. This is particularly beneficial for patients who live far from the ASC or have mobility issues.
- **Remote Monitoring.** Telemedicine can be integrated with remote monitoring tools to track patients' recovery in real-time. This allows healthcare providers to intervene promptly if any issues arise.
- **Enhanced Patient Engagement.** Telemedicine platforms often include features like secure messaging, video calls, and digital care plans, which keep patients engaged and informed throughout their surgical journey.

Imagine being able to conduct a detailed pre-surgery consultation with a patient via a video call, ensuring they are well-prepared and reducing the likelihood of cancellations. Post-surgery, you can monitor their

recovery remotely, providing timely advice and support as needed.

Future Outlook and Potential Impact on ASCs

The future of digital health in ASCs is bright, with these emerging trends poised to bring transformative changes:

1. **Improved Patient Outcomes.** By leveraging AI and ML for predictive analytics and diagnostics, ASCs can enhance patient outcomes through early detection and intervention.
2. **Operational Efficiency.** Automating workflows and using advanced telemedicine capabilities can streamline operations, reduce administrative burdens, and improve overall efficiency.
3. **Data Security and Compliance.** Implementing blockchain technology will ensure that patient data is secure and compliant with regulatory standards, building trust and confidence among patients.
4. **Patient Engagement and Satisfaction.** Telemedicine and other digital tools will enhance patient engagement, leading to higher satisfaction rates and better adherence to care plans.

Emerging trends in digital health are set to revolutionize the way ASCs operate and deliver care. AI and ML offer powerful tools for predictive analytics and diagnostics, while blockchain technology provides robust data security and improved data sharing capabilities.

Advanced telemedicine platforms enhance patient engagement and make healthcare more accessible and efficient. By staying abreast of these trends and integrating them into their operations, ASCs can

significantly improve patient outcomes, operational efficiency, and overall satisfaction.

The future of digital health in ASCs is not just about adopting new technologies; it's about reimagining how care is delivered and ensuring that patients receive the highest quality of care in the most efficient and secure manner possible.

Utilize Power Tools for ASC Growth and Success

The future of ASCs is bright, with digital health solutions poised to bring transformative changes. By embracing these technologies, ASCs can stay ahead of the curve, providing high-quality, efficient, and patient-centered care.

The integration of digital health solutions will not only improve clinical outcomes but also enhance the overall patient experience, leading to higher satisfaction and loyalty.

For ASC leaders, the path forward is clear. The adoption of digital health technologies is no longer optional; it's essential for staying competitive and delivering the best possible care. Here's how you can get started:

1. **Assess Your Needs.** Begin by evaluating your current operations and identifying areas where digital health solutions can make the most impact. Consider factors such as patient demographics, existing workflows, and specific challenges.
2. **Choose the Right Technologies.** Research and select digital health tools that align with your goals and address your needs. Ensure that the technologies you choose are user-friendly and compatible with your existing systems.
3. **Invest in Training.** Provide comprehensive training for your staff to ensure they are comfortable using new technologies. Encourage a culture of continuous learning and adaptation.
4. **Implement Gradually.** Start with a pilot program to test the new technologies and gather feedback. Gradually expand the implementation as you refine your processes and address any challenges.

5. **Monitor and Measure.** Continuously monitor the performance of digital health solutions and measure their impact on patient outcomes, operational efficiency, and satisfaction. Use data-driven insights to make informed decisions and adjustments.
6. **Engage Patients.** Involve your patients in the adoption process by educating them about the benefits of digital health tools and encouraging their use. Provide support and resources to help them navigate new technologies.
7. **Stay Updated.** Keep abreast of emerging trends and advancements in digital health. Attend industry conferences, participate in webinars, and engage with other healthcare professionals to stay informed and inspired.

By taking these steps, you can lead your ASC into a new era of healthcare innovation, where digital health technologies drive excellence in patient care and operational efficiency. The journey may have its challenges, but the rewards are well worth the effort.

By embracing these technologies, you can improve patient outcomes, enhance operational efficiency, and provide a superior patient experience. The future of healthcare is digital, and ASCs that adopt and adapt to these advancements will thrive in this dynamic landscape.

References

- Angraal, S., Krumholz, H. M., & Schulz, W. L. (2017). Blockchain technology: applications in health care. *Circulation: Cardiovascular Quality and Outcomes*, 10(9), e003800. doi:10.1161/CIRCOUTCOMES.117.003800
- Bashshur, R. L., Shannon, G. W., Smith, B. R., Alverson, D. C., Antoniotti, N., Barsan, W. G., ... & Yellowlees, P. (2016). The empirical foundations of telemedicine interventions in primary care. *Telemedicine and e-Health*, 22(5), 342-375. doi:10.1089/tmj.2016.0045
- Dennison, L., Morrison, L., Conway, G., & Yardley, L. (2013). Opportunities and challenges for smartphone applications in supporting health behavior change: qualitative study. *Journal of Medical Internet Research*, 15(4), e86. doi:10.2196/jmir.2583
- Dowding, D., Randell, R., Gardner, P., Fitzpatrick, G., Dykes, P., Favela, J., ... & Currie, L. (2015). Dashboards for improving patient care: Review of the literature. *International Journal of Medical Informatics*, 84(2), 87-100. doi:10.1016/j.ijmedinf.2014.10.001
- Fischer, C., Lingsma, H. F., Marang-van de Mheen, P. J., Kringos, D. S., Klazinga, N. S., & Steyerberg, E. W. (2018). Is the readmission rate a valid quality indicator? A review of the evidence. *PLOS ONE*, 13(7), e0201464. doi:10.1371/journal.pone.0201464
- Freeman, D., Haselton, P., van der Gaag, M., & Nickless, A. (2017). Automated virtual reality therapy for auditory verbal hallucinations: a single-blind, randomized controlled trial. *The*

Lancet Psychiatry, 5(4), 319-328.

doi:10.1016/S2215-0366(18)30071-2

- Ghassemi, M., Naumann, T., Schulam, P., Beam, A. L., Chen, I. Y., & Ranganath, R. (2018). Opportunities in machine learning for healthcare. *Nature Biomedical Engineering*, 2(10), 938-947. doi:10.1038/s41551-018-0305-z
- Greene, J., Hibbard, J. H., Sacks, R., Overton, V., & Parrotta, C. D. (2015). When patient activation levels change, health outcomes and costs change, too. *Health Affairs*, 34(3), 431-437. doi:10.1377/hlthaff.2014.0452
- Hibbard, J. H., & Greene, J. (2013). What the evidence shows about patient activation: Better health outcomes and care experiences; fewer data on costs. *Health Affairs*, 32(2), 207-214. doi:10.1377/hlthaff.2012.1061
- Hollander, J. E., & Carr, B. G. (2020). Virtually perfect? Telemedicine for Covid-19. *New England Journal of Medicine*, 382(18), 1679-1681. doi:10.1056/NEJMp2003539
- Kheirkhah, P., Feng, Q., Travis, L. M., Tavakoli-Tabasi, S., & Sharafkhaneh, A. (2015). Prevalence, predictors and economic consequences of no-shows. *BMC Health Services Research*, 16(1), 13. doi:10.1186/s12913-015-1243-z
- King, J., Patel, V., Jamoom, E. W., & Furukawa, M. F. (2014). Clinical benefits of electronic health record use: national findings. *Health Services Research*, 49(1pt2), 392-404. doi:10.1111/1475-6773.12135
- Kumar, S., Wong, W. P., & Lau, Y. (2017). Evaluation of a remote patient monitoring intervention for reducing hospital readmissions.

Journal of Telemedicine and Telecare, 23(5), 670-679. doi:10.1177/1357633X16647648

- McGillion, M. H., Duceppe, E., Peters, T. M., Sherifali, D., Carroll, S. L., Victor, J. C., ... & Devereaux, P. J. (2018). Postoperative remote automated monitoring: need for and state of the science. *Journal of Cardiovascular Nursing*, 33(4), 329-337. doi:10.1097/JCN.0000000000000485
- Miller Jr D, Latulipe C, Melius K, Quandt S, Arcury T (2016). Primary Care Providers' Views of Patient Portals: Interview Study of Perceived Benefits and Consequences. *Journal of Medical Internet Research* 2016;18(1):e8. DOI: 10.2196/jmir.4953
- Prgomet, M., Li, L., Niazkhani, Z., Georgiou, A., & Westbrook, J. I. (2017). Impact of commercial computerized physician order entry (CPOE) and clinical decision support systems (CDSS) on medication errors in hospitals: A systematic review and meta-analysis. *Journal of the American Medical Informatics Association*, 24(2), 295-310. doi:10.1093/jamia/ocw125
- Rajkomar, A., Dean, J., & Kohane, I. (2019). Machine learning in medicine. *New England Journal of Medicine*, 380(14), 1347-1358. doi:10.1056/NEJMra1814259
- Wang, Y., Kung, L. A., Byrd, T. A., & Zheng, Y. (2018). Big data analytics: Understanding its capabilities and potential benefits for healthcare organizations. *Technological Forecasting and Social Change*, 126, 3-13. doi:10.1016/j.techfore.2015.12.019



Info

- Author/Editor: Reynaldo Villar
- Published: April 20, 2024, by Calcium LLC
- Website: calciumhealth.com

About Calcium LLC

At Calcium, our mission is to empower healthier lives with intuitive digital tools that give individuals, their clinicians and health advocates access to meaningful health data and personalized guidance on healthier behaviors.

The Calcium digital health platform provides the integrated solution for healthcare providers – and their patients – that empowers physicians, nurses and care teams with the analytics, data and tools they need offer a higher level of service, while also improving their staff’s productivity and patient outcomes.

Learn More About the Calcium Digital Health Solution for Ambulatory Surgery Centers and Their Patients

Are you ready to harness the power of digital health to optimize your care management and improve patient outcomes?

Visit our [ASC Solutions page](#) for more information and to schedule a demo today:

<https://calciumhealth.com/Ambulatory-Surgery-Center-Periop-Solution-1>