

Medtronic

Engineering the extraordinary

Integrated Health SolutionsSM

Addressing surgical backlogs in a time of reduced capacity



Surgical backlogs are mounting at a time when providers' effective capacity is severely reduced



For hospitals to effectively resume operations, they need to maximize their existing capacity while minimizing pressure on their in-hospital resources and shift some activities to alternative settings.

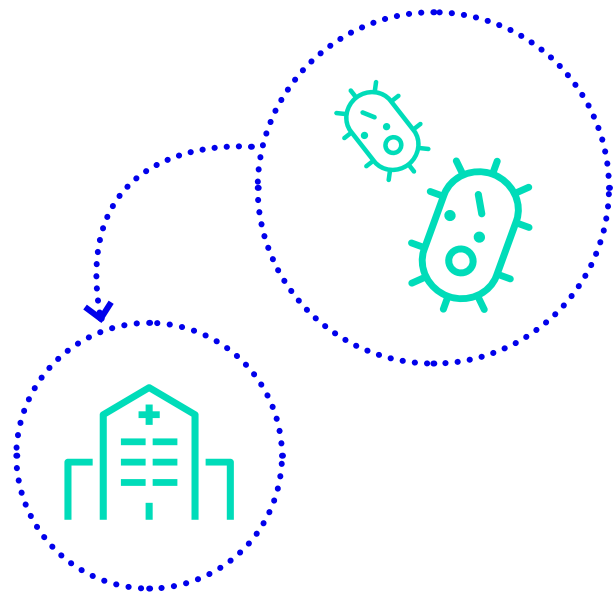
By deferring elective procedures to cope with surges of COVID-19 patients, many providers have experienced significant surgical backlogs.

At the same time, their capacity has been reduced due to workforce shortages, reserving inpatient capacity for potential COVID-19 resurgences, and enhanced sanitation protocols that take up more time and space.

Furthermore, new outbreaks and variants of the virus are continuing to destabilize providers' operations despite vaccine roll out programs.

This imbalance results in ever-longer wait lists and potentially worsening patient health as they wait for procedures. It also has a severe

toll on providers' budgets, as surgical activity is typically a substantial contributor to their margins.



A Partnership to address backlogs and transform operations

Providers are overwhelmed with these issues and need a partner who can quickly help them unleash capacity. That's why we are currently working with more than 100 providers across EMEA to help them:

- Rapidly restore surgical activities when the volume of hospitalized COVID-19 patients is receding.
- Transform care delivery models and operational practices to sustainably increase capacity and productivity – ultimately, transitioning to a "new normal" post COVID-19.
- Our strategies help clients maximize their use of existing in-hospital capacity and resources. It also helps them reimagine their clinical operations and care pathways by minimizing the load on their in-hospital resources and shifting some activities to alternative settings such as outpatient, virtual, and home. To do this, we are leveraging several of our offerings, such as our operational excellence programs or managed services while also deploying new solutions we've developed since the start of the pandemic.

Key services and solutions

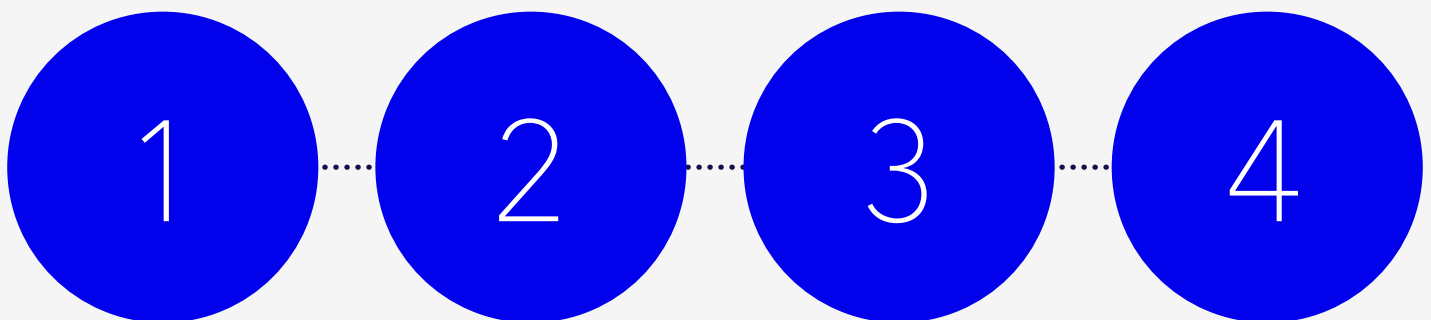
We deliver these solutions as a standalone or in combination, as our transformation programs typically act on multiple interrelated levers to create step change in performance.

Maximizing the use of existing capacity

The following solutions are proving to be highly effective in maximizing the use of existing provider capacity:

Maximizing the use of existing capacity

Enhancing operational efficiency and unlocking capacity for growth



Operational excellence
optimizing clinical and non-clinical operations

Supply chain optimization and management services
delivering seamless inventory management experience

Smart planning and scheduling
maximizing utilization of resources and enhancing coordination

Managed services
outsourcing non-clinical operations and enhancing operational efficiencies

1

Operational excellence

We have deployed our operational excellence programs at hundreds of providers in EMEA over the past years. As a result, we have developed a track record of helping providers **boost operational efficiency and cost effectiveness while making sustainable improvement in the quality of care.**

As part of this work, we've created proven tools and approaches that accelerate the speed of improvement in both clinical and non-clinical operations. Whether variability is in patient outcomes, length of stay, workforce productivity, clinical supply utilization, or clinician satisfaction and retention, we help our clients engage frontline staff – physicians and nurses – to **lead the effort in addressing the causes of variability and making critical changes.**

Our clients typically see productivity improvements of 15-30% over 12 to 18 months and a return on investment between 3 and 10 times by focusing on throughput, quality, supply utilization, and nursing.¹

2

Supply chain optimization and management services

We have a deep history of optimizing and managing supply chain for cardiovascular departments and have expanded this offering more recently in surgical settings. We are currently running these services at **more than 100 accounts** and our offerings typically include consulting services, IT enablement, data & analytics, and labor augmentation.

We have a solid track record of eliminating waste, reducing costs, improving efficiency with a two- to three-fold return on investment. We also deliver a seamless inventory management experience so clinicians can focus on what matters most: patient care.

With current staff shortages, providers are becoming more aware that inefficient inventory management not only loses money for the hospital but also devours staff hours and diverts clinicians' attention from patient care. That's why we're seeing a growing interest in our supply chain offerings that we are deploying as both part of our managed services and as standalone solutions.


3

Smart planning and scheduling

The implementation of advanced planning and scheduling (APS) software is **an effective lever to maximize the use of existing resources as well as quickly increase surgical efficiency and throughput.**

We have partnered with Ikusi/Bide Avant to develop and deploy Forward™, an innovative APS solution that transfers the advanced decision making and optimization technologies used in the airline industry to surgical settings.

This advanced, AI-powered OR planning and scheduling solution enables surgical departments to plan, manage, and optimize their activity that maximizes resource utilization, enhances coordination, and enables the best possible care for patients.



Increasing, for example, in an already highly efficient hospital OR utilization by 10% to reach 89 % and overall surgical activity by 5% (600 additional surgeries/year) ²

4

Managed services

We are the **leading managed service provider for specialized care settings** such as Cath Labs and ORs in the EMEA region. We currently deliver those services for **more than 200 hospitals, managing more than 600 Cath Labs and ORs.**



Managing
more than

600

Cath Labs
and ORs.

This solution typically includes the supply chain management and operational excellence services detailed above. It includes also turnkey services to set up and finance state-of-the-art infrastructure and technologies, as well as develop strategies to grow referrals and accelerate patient access.

Hospitals have told us they find these offerings especially valuable because they:

- Provide **affordable access to capital equipment** and effective infrastructure turnkey set up, enabling capacity expansion
- Outsource non-clinical operations **so clinical staff can focus on patient care**
- Optimize clinical and non-clinical operations, **increasing operational efficiency, unlocking capacity, and driving staff engagement**

Re-imagining care pathways

The pressure on acute settings and surgical backlogs are creating new incentives for providers to accelerate shifts in care delivery models that were already underway before the pandemic.

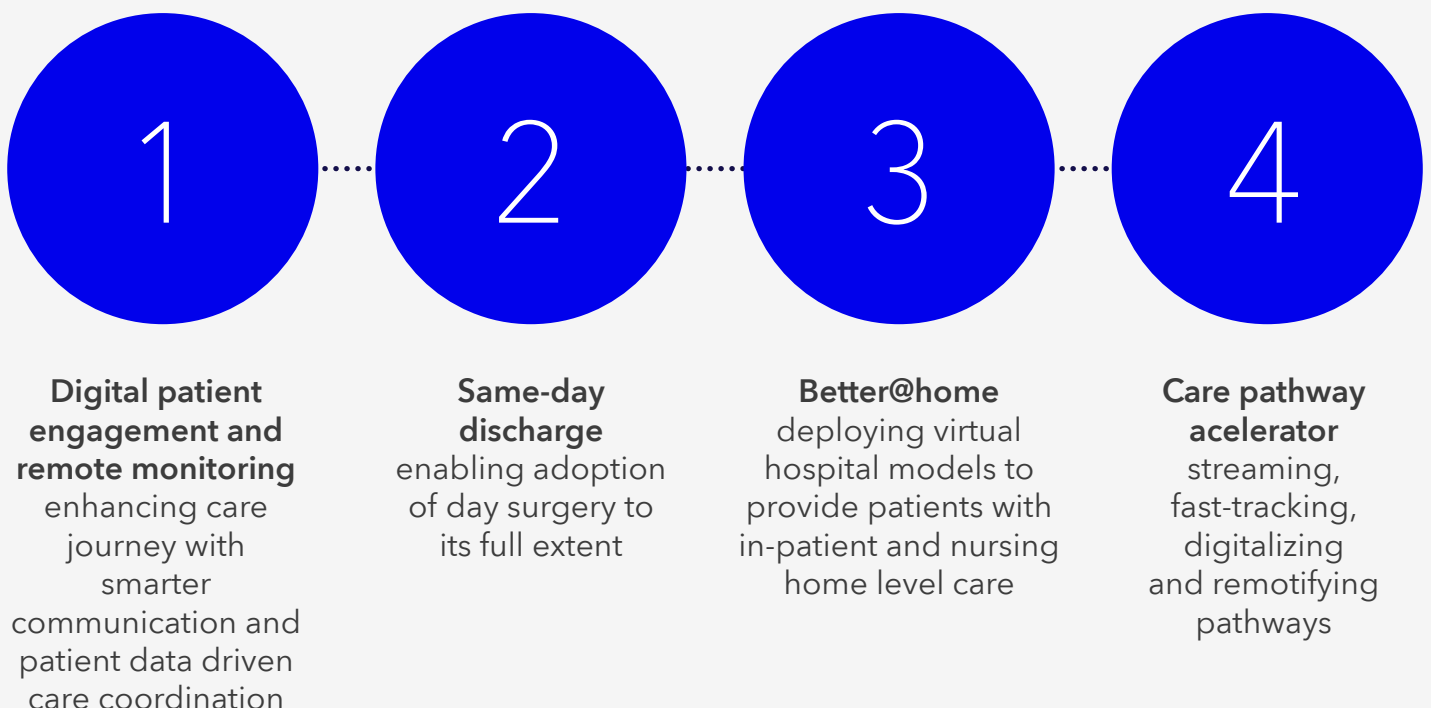
Here are some examples:

- Using digital health technologies to engage and prepare the patients before intervention and enable faster discharge and remote follow-up after surgery
- Moving procedures down the “intensity gradient,” such as moving work away from elective inpatient theatres into a day surgery or outpatient pathway
- Shifting to remote or at home alternative care settings

To help our clients fast-track implementation of those care model innovations, we are deploying the following four solutions:

Re-imagining care pathways

Minimizing load on in-hospital resources and shift activities to alternate settings



1

Digital patient engagement and remote monitoring

Under COVID-19, demand for and **acceptance of remote patient monitoring and digital patient engagement have surged.**

These virtual health solutions can improve the effectiveness and efficiency of maintaining patients at home, thereby **avoiding unnecessary hospital stays, increasing patient engagement, improving clinical outcomes, and reducing the costs of care.**

Hospitals need flexible solutions that can support and empower patients across a variety of diseases. Get Ready® is our digital, remote patient management solution that aims to optimize the entire care pathway, from waiting list to post-intervention follow-up, across a variety of diseases and use cases.

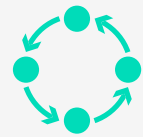
The Get Ready® solution is based on three components:



A digital platform connecting patients and clinical team



An extensive knowledge base, and clinical protocols across many therapies



Consulting services to digitize and optimize pathways

It is deployed either as a standalone solution or as part of broader offerings, such as our Care Pathway Accelerator or our Day Case by Default solutions.



2 Same-day discharge

Medical and technological advances have enabled a large – and growing – number of interventions to be performed by hospitals as “day cases” with discharge on the day of treatment. **This has resulted in equivalent or better quality and safety of care using fewer resources and lower costs.**

Despite this, adoption has varied among different countries, hospitals, surgery types, and surgeons. However, COVID-19 and the associated pressure on acute settings and patients’ reluctance to hospitalization is raising the importance of day surgery and lowering barriers to adoption.

In partnership with the IAAS (International Association for Ambulatory Surgery) organization we have developed a comprehensive “Same-day discharge” solution to help accelerate the shift from inpatient surgery today case, where indications exist.

The solution is made up of three elements:

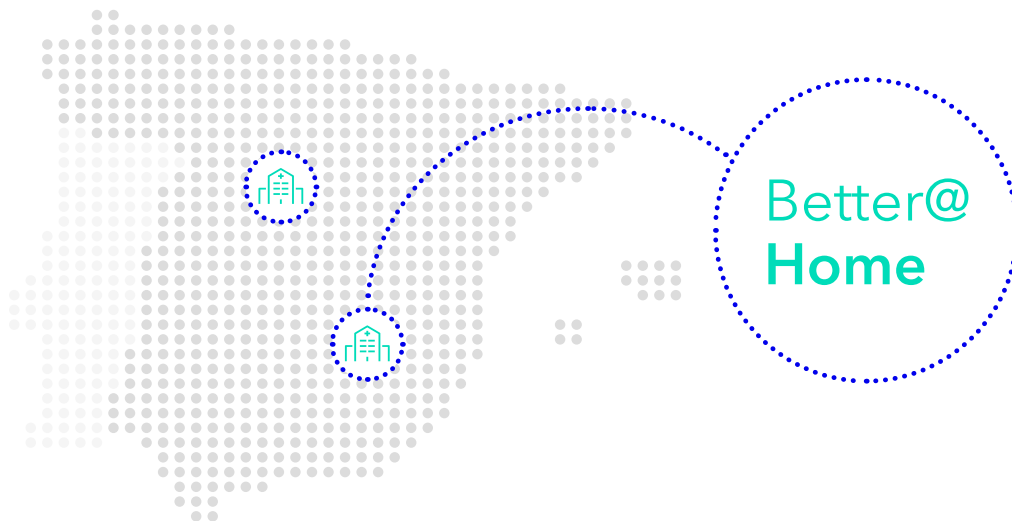
- Generic and therapy-specific day case pathways and perioperative protocols developed with (and endorsed by) the IAAS
- IT enablement by Get Ready® to operationalize the protocols and embed them in daily practices, as well as to **enable a more effective pre-operative preparation, post-operative discharge, remote monitoring, and outcome data collection**
- Change management to support clinical teams in converting from inpatient activity to day case and to drive operating theatre efficiency improvement where needed

3

Better@Home - home hospitalization

Hospitalization at home is proven to increase efficient healthcare provision by reducing costs and improving patient satisfaction. The current model of delivery remains however, highly resource intensive as it often relies on a full, dedicated team of physicians and nurses visiting patients' homes.

In partnership with two hospitals in Spain, we have developed an innovative virtual hospital model called Better@Home. This model provides inpatient-level care at home with superior outcomes and cost performance. It uses digital and medical technologies to manage complex clinical models and patient conditions and address changing patient circumstances in near real time.



The solution includes:

- A digital platform tool to connect the patient and their caregivers to the care team
- Standardized and personalized care plans
- A remote monitoring support center (RMSC) for triaging
- An integration layer to interconnect the solution with the hospital's information system and when required, coordination services with primary care

4

Care Pathway Accelerator

Transforming care pathways remains a difficult undertaking. To do this successfully, **hospitals must work simultaneously to reconfigure services, streamline processes, adapt and standardize clinical protocols, and align stakeholders along the full perioperative pathway.**

This is why we developed the “IHS Pathway Accelerator,” which capitalizes on hundreds of care pathway transformation and acceleration projects. It is an approach that helps hospitals transform pathways in an effective and sustainable way.

The Pathway Accelerator includes generic assets (e.g., methodologies, tools, Get Ready® digital platform) applicable across medical conditions, pathway-specific acceleration playbooks, and access to partnering centers of excellence who share best practices and learnings.

We developed and road tested the pathway-specific playbooks in partnership with one or several centers recognized for their excellence in a specific therapeutical area.

We continuously update them based on the learnings from subsequent implementations at other providers and as new guidelines and best practices emerge.



We have currently close to 100 projects ongoing in that space.

References

1. Medtronic Data on File. Medtronic IHS_Case Study_OPEX in OR, vF, Spain, 2018.
2. Medtronic Data on File. Consolidated IHS EMEA case study value report, 2021

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This material is for Healthcare Professionals in countries with applicable health authority product registrations.

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