

# OR efficiency in ENT surgery

Discoveries in research



Seeing beyond

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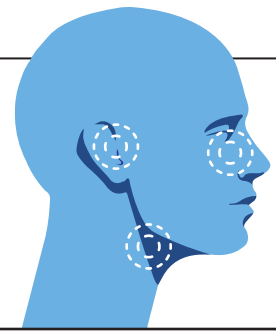
# Contents

How can we optimize efficiency in the OR without compromising patient safety and satisfaction? We looked through the research and collated some of the most interesting and insightful studies to help guide us along the path to ENT OR excellence.

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# 1. General studies



How can we achieve OR excellence?

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Overcome the challenges of time management and improve your efficiency with these **12 smart tips** specifically for doctors.

Reese S.  
**12 Smart Time Management Tips For Doctors.**  
Medscape. Apr 27, 2016.



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Discover the **formula for quality surgical care** to help you achieve OR excellence.

Malhotra V.  
**OR Excellence.**  
Outpatient Surgery Magazine 2010.



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Learn **10 ways that surgical centers can profit from ENT** while improving patient safety and satisfaction.

Fields R.  
**10 Steps to Profitable and Successful ENT in Surgery Center.**  
Becker's Hospital Review. Jul 15, 2011.



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Let **video integration** connect your OR equipment and enhance the overall experience for your surgical team.

Brunswick M.  
**Orchestrating the Sights and Sounds of Surgery.**  
Outpatient Surgery Magazine 2016.



***“Patient safety plus efficiency, together they contribute to the overall quality of care.”***

Malhotra V. OR Excellence.

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How much does a minute of OR time cost?

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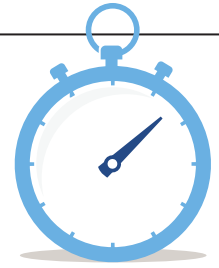
Understand what contributes to **the cost of 1 minute of OR time** to help improve value and efficiency.

Childers CP, Maggard-Gibbons M.  
**Understanding Costs of Care in the Operating Room.**  
JAMA Surg 2018;153(4):e176233.



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## 2. OR turnover time



What is the average OR turnover and turnaround time?

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Learn how lean management techniques can help you reduce turnover (TOT) and turnaround (TAT) times in the OR.

Collar RM, et al.  
**Lean Management in Academic Surgery.**  
Am Coll Surg 2012;214:928-936.



*“...through the use of additional surgical equipment, we improved nonsurgical process times and output by up to around 30%.”*

Pakdil F, Harwood TN. Factors that influence efficiency in performing ENT cases: a qualitative and quantitative analysis.

How to reduce nonsurgical process times?

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Drive significant improvements in efficiency and throughput with these **four key strategies**.

Forrest P.  
**The Race for ASC Efficiency and Value: 4 Ways to Increase Throughput and Promote Quality.**  
Becker's ASC Review. Sept 4, 2015.



Reduce OR turnover times through **efficient equipment and incentivized staff**.

Hampson L.  
**Reducing Turnover Times in the Operating Room. University of California San Francisco Center for Healthcare Value.** Jan 27, 2014.



Find out how **analysis of cases with a high TOT:procedure time ratio** can highlight areas for improvement and reduce process times.

Pakdil F, Harwood TN.  
**Factors that Influence Efficiency in Performing ENT Cases: A Qualitative and Quantitative Analysis.**  
J Med Syst 2005;29:285-301.



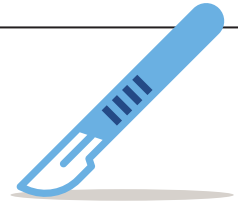
Learn how one hospital **optimized tools, tasks and teamwork** to significantly cut the average turnover time.

Burger J.  
**Achieving World-Class Turnover Time.**  
Outpatient Surgery Magazine 2015.



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## 3. Surgical site infections (SSIs)



How is SSI connected to OR efficiency?

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Find out how operating time and SSI are linked, and why hospitals should focus efforts to **reduce operative time and thus reduce SSI**.

Cheng H, et al.  
**Prolonged Operative Duration Increases Risk of Surgical Site Infections: A Systematic Review.**  
Surg Infect (Larchmt) 2017;18:722-735.



What is the cost of an SSI?

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Find out why the **costs of SSIs** are significant in both low- and middle-income countries (LMIC) and high-income European countries.

Monahan M, et al.  
**Surgical Site Infection and Costs in Low- and Middle-income Countries: A Systematic Review of the Economic Burden.**  
PLoS One 2020;15(6):e0232960.



***“...given the importance of SSIs on patient outcomes and health care economics... hospitals should focus efforts to reduce operative time.”***

Cheng H, et al. Prolonged Operative Duration Increases Risk of Surgical Site Infections: A Systematic Review.

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## 4. Surgical data science



What is surgical data science?

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Discover how large-scale data analytics can **support decision-making and drive quality improvements** in interventional healthcare.

Maier-Hein L, et al.  
**Surgical Data Science: Enabling Next-generation Surgery.**  
arXiv:1701.06482v2



*“The efficient acquisition and curation of available data from diverse sources is vital to facilitate a learning healthcare system.”*

Vedula SS and Hager GD. Surgical data science: The new knowledge domain.

How can surgical data science improve OR efficiency?

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Learn how analyzing the **opportunities and challenges that surgeries face** can improve the quality and value of healthcare.

Vedula SS and Hager GD.  
**Surgical Data Science: The New Knowledge Domain.**  
Innov Surg Sci 2017;2:109-121.



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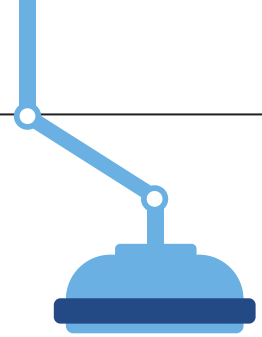
Find out how **fully workflow-enabled, context-aware ORs** could deliver significant improvements in surgical efficiency.

Stauder R, et al.  
**Surgical Data Processing for Smart Intraoperative Assistance Systems.**  
Innov Surg Sci 2017;2:145-152.



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## 5. Surgical light sources



How can different light sources improve OR efficiency?

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Explore the differences between various light sources in the OR, and how **not all lighting is the same**.

Bovie Medical.  
**The Difference Between Halogen and LED Lights in Surgical Rooms.**  
Symmetry Surgical. Aug 01 2016.



***“Preventative measures should be taken to decrease the risk of thermal injuries [during surgery] including use of the lowest comfortable light intensity...”***

Latuska RF et al. Auricular burns associated with operating microscope use during otologic surgery.

How can different light sources influence patient safety?

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Learn about the **risk of auricular burns** with operating microscope use, and how this can be reduced through microscope functionality.

Latuska R, et al.  
**Auricular Burns Associated With Operating Microscope Use During Otologic Surgery.**  
Otol Neurotol 2014;35:227-233.



Discover how **measuring temperature variations** in otomicroscopes can highlight the potential of thermal injury during procedures.

Imbery TE, et al.  
**Thermal Variations of Operative Microscopes in Otology.**  
Otolaryngol Head Neck Surg 2017;157:113-116.



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