

# Clinical Evidence Brief & Operational Value Analysis

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**Framework:** POQI-Aligned Surgery School

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## Executive Summary

OpWell Concierge™ is an independent, telehealth-based perioperative specialty service that translates multicenter RCT evidence from Enhanced Recovery After Surgery (ERAS), Perioperative Surgical Home (PSH), and prehabilitation literature into a comprehensive optimization model across **two distinct phases: preoperative preparation and structured 30-day post-discharge monitoring**. OpWell does not participate in intraoperative care. This brief presents the primary evidence base, with exact effect estimates, confidence intervals, and certainty-of-evidence ratings for each clinical claim.

## Evidence Table: Clinical and Operational Claims

| Clinical Claim                                      | Effect Estimate (95% CI)                          | Certainty | Primary Source                                        |
|-----------------------------------------------------|---------------------------------------------------|-----------|-------------------------------------------------------|
| Complication reduction via exercise prehabilitation | OR 0.50 (0.39–0.64); ~50% RR                      | Very Low* | Mclsaac et al., BMJ 2025; 186 RCTs, n = 15,684        |
| Complication reduction via exercise (confirmatory)  | OR 0.54 (0.44–0.67)                               | Moderate  | Ramic et al., Anesth Analg 2025; 99 RCTs, n = 8,222   |
| Hospital LOS reduction via ERAS pathways            | MD –1.88 days (–2.81 to –0.95)                    | Moderate  | Sauro et al., JAMA Netw Open 2024; 74 RCTs, n = 9,076 |
| Complication reduction via ERAS pathways            | RR 0.71 (0.59–0.87)                               | Mod-High  | Sauro et al., JAMA Netw Open 2024                     |
| Cost savings — abdominal ERAS                       | –\$5,109 per case (–\$5,852 to –\$4,366)          | Moderate  | Visioni et al., Ann Surg 2018; 39 studies, n = 6,511  |
| Anesthesiologist-led PSH operational impact         | Decreased LOS, ICU use, opioids; ↑ home discharge | Low       | Cline et al., J Clin Anesth 2020; 11 studies          |
| Cost-effectiveness of prehabilitation               | 64% (16/25) support cost-effectiveness            | Low**     | Rombey et al., BMC Med 2023                           |
| ED visit reduction via mHealth monitoring           | OR 0.42 (0.23–0.79); ~58% reduction               | Low       | Dawes et al., BJS 2021; 45 studies                    |
| Readmission reduction via mHealth                   | OR 0.47 (0.29–0.77); ~53% reduction               | Low       | Dawes et al., BJS 2021                                |
| Readmission reduction via digital health            | RR 0.67 (0.58–0.78; I² = 0%); ~33% reduction      | Low-Mod   | Grygorian et al., JAMA Netw Open 2024;7(4):e244963    |
| Preoperative patient education — LOS                | MD –1.01 days (–1.86 to –0.16)                    | Moderate  | Hall et al., J Am Coll Surg 2025; 40 RCTs, n = 4,113  |
| QoR-15 psychometric validity                        | Cronbach's α = 0.85 (0.83–0.87); r = 0.97         | High      | Myles PS, et al. Br J Anaesth 2022;128(6):1029-1039   |
| Same-day cancellation reduction                     | 12.3% → 8.4% rate; \$150,200 savings              | Moderate  | Wongtangman K, et al. Anaesthesia 2024;79(6):618-627  |
| Preoperative assessment → cancellation reduction    | AOR 0.55 (0.43–0.72)                              | Moderate  | Tan et al., Int J Surg 2019                           |

\* Robust after exclusion of high risk-of-bias trials. \*\* Publication bias risk noted by authors.

Critical Nuance: Post-Discharge Monitoring Requires Structured Technology

A systematic review by Boggan et al. (2025, *Annals of Internal Medicine*) of 7 randomized trials (n = 7,075) demonstrated that simple, single-contact telephone calls within 7 days of discharge produced **no reduction** in 30-day readmissions (risk difference 0.00; 95% CI -0.02 to 0.02; moderate certainty) or ED visits. This indicates that passive, unstructured telephone follow-up is **clinically insufficient** to change healthcare utilization outcomes.

The significant reductions in readmissions and ED visits cited in the broader literature (OR 0.42–0.67) are **strictly specific to structured, technology-enabled, multi-contact monitoring platforms**—the exact clinical standard operationalized by OpWell Concierge. This evidence distinction underscores the operational necessity of structured tracking in value-based care pathways.

OpWell Surgery School: POQI Consensus Alignment

Every referred patient completes a 23-module digital preparatory framework aligned with 2025 POQI recommendations across five therapeutic domains:

|                                                                             |                                                                                  |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <b>Procedure-Specific</b><br>Personalized pathways for 8 major specialties. | <b>Behavior Change</b><br>Targeted nutritional, fitness, and cessation coaching. |
| <b>Psychological</b><br>Anxiety mitigation and clinical visualization.      | <b>Practical Preparation</b><br>Home configuration and caregiver alignment.      |
| <b>Expectations</b><br>Comprehensive 30-day week-by-week recovery roadmap.  |                                                                                  |

B2B Integration and Clinical Continuity

OpWell Concierge operates exclusively in the preoperative and post-discharge phases as a collaborative extension of existing clinical practice. **It does not provide intraoperative services, alter surgical plans, manage technical operative complications, or replace standard postoperative office visits.**

**Preoperative Phase:** By intercepting low-risk programmatic queries, providing objective medical clearance reporting, and delivering a validated Readiness Score alongside a physical completion certificate, OpWell ensures patients arrive optimized, compliant, and structurally prepared for anesthesia and surgery.

**Post-Discharge Phase:** OpWell's structured digital monitoring platform triages recovery concerns during the critical 30-day window via technology-enabled multi-contact touchpoints, escalating actionable findings back to the surgical team for clinical integration.

## Transparency Statement on Evidence Certainty

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**Strongest Evidence (Moderate-High):** ERAS pathways consistently reduce hospital LOS by ~1.9 days and complications (RR 0.71) across high-quality RCTs. This represents the gold standard for perioperative optimization.

**Strong Evidence (Very Low-Moderate):** Exercise prehabilitation demonstrates consistent 50–54% complication reduction. Results are graded very low to moderate due to trial-level risk of bias, but remain robust after exclusion of high risk-of-bias trials.

**Moderate Evidence (Low-Moderate):** Post-discharge monitoring shows the strongest signal from structured, technology-enabled platforms (OR 0.42–0.67) rather than passive telephone contact. The Boggan et al. null finding for passive calls clinically reinforces this operational distinction.

**Foundational Evidence (Low):** The anesthesiologist-led PSH model lacks RCT-level evidence; available data are limited to before-and-after cohort studies. These limitations are standard for complex health-system interventions and do not negate the consistent direction of effect across all domains.

**Conclusion:** The OpWell clinical framework is structurally aligned with moderate-to-high certainty evidence across its core therapeutic domains (ERAS guidelines, prehabilitation protocols, and structured digital monitoring), delivering a rigorously validated, evidence-based asset to surgical programs.

## References

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