



Rapid Recovery Hip & Knee

Case Study



Dutch Hospital

Hospital Data

- THAs performed in 2015: 418
- TKAs performed in 2015: 463
- Background: New team members provided an opportunity to change practice & management believed that focusing on quality would lead to cost reduction.
- Timeline for Rapid Recovery (RR) implementation: Started implementing Rapid Recovery diagnostics and conception phase in 2012 and realised in 2013 after Joint Care was established and running in 2011 (baseline). From 2013 until 2015 continuous improvements have been rolled-out.

Objectives

Priorities for hospital included:

- Hospital wanted to advocate and demonstrate that they have the best solution and care for patients needing TJR* surgery.
- Simplified and clear clinical pathway protocols focused on all patients
- Improved patient engagement: education made available to all patients
- Enhancement of clinical practices to allow for early mobilization in a safe manner without increasing readmissions

How Did Zimmer Biomet Support?

After identifying the needs of the surgeon, care giver and hospital management the Zimmer Biomet consultants analysed the current pathway via a multidisciplinary mapping process which:

- Enabled multidisciplinary team engagement and helped bridge relations between care givers and management of hospital
- Emphasized mission statement: “why is the patient still in hospital, what do we do now and how can we improve”
- Performed a diagnosis, set up the project plan, and supported during roll-out of conception – implementation – continuous improvement phases of the RRP**
- Educated staff on the ward
- Continuously evaluated the current care pathway to improve patient experience when receiving a joint replacement
- Placed focus on bottle necks, ideas, objectives, and priorities felt necessary by staff members involved in care of TJR patients

“We want to provide optimal patient care that adheres to advanced medical healthcare in a clear way, whereby patient satisfaction is increased”

– Chairman of Steering Committee

* Total Joint Replacement
** Rapid Recovery Programme

How Did Zimmer Biomet Support?



Compass



Process Redesign



Clinical Enhancement



Communication

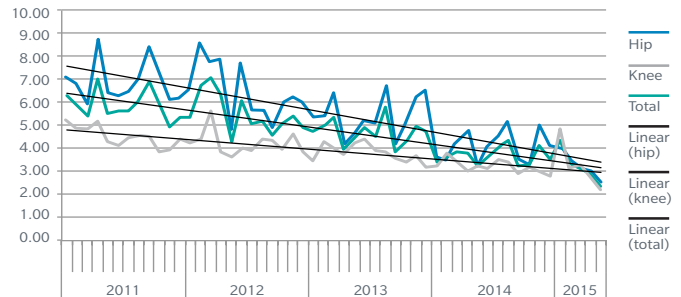


Data Monitoring

LOS Benefits

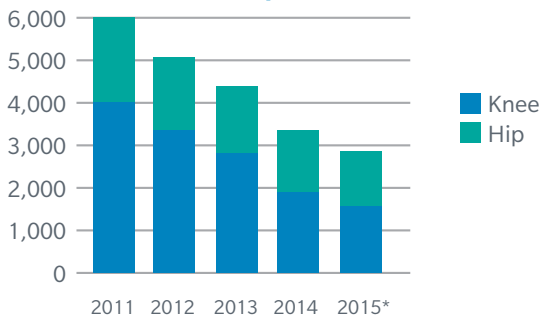
- Implementing RR lead to a significant reduction in LOS for TJRs over the last 5 years, with equivalent hospital stay for both THR and TKR patients in 2015
- Predictable LOS lead to plannability of TJR surgery due to reduced variance in case mix
- Reduced variance in LOS between THR and TKR made planning of TJR easier due to increased predictability for LOS

Length of Stay

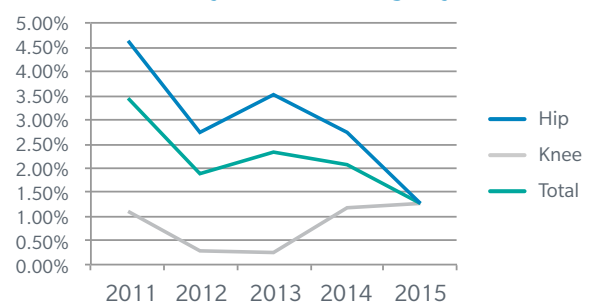


Capacity Benefits

LOS Days for TJRs Performed at Orthopedic Ward



Percentage Patients Admitted Day Before Surgery



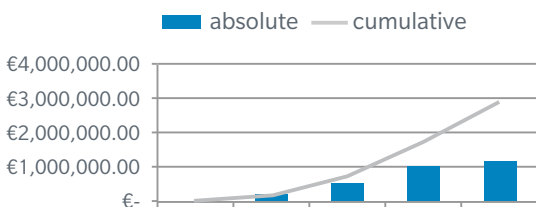
- The benefit of RR implementation realised 6,123 hospital days over period 2012-2015 (when volumes were kept constant)
- Reduced LOS due to RR has resulted in fewer beds needed for TJR so other patients have access to medical care
- RR has resulted in fewer patients admitted the day before surgery, specifically for THR patients

Financial Benefits

- Reduced LOS lead to direct cost savings of approximately €2.9m for the hospital over a 5 year period
- Optimisation of clinical processes resulted in increased quality, due to dedicated staff, and reduced personnel costs

Cost Savings

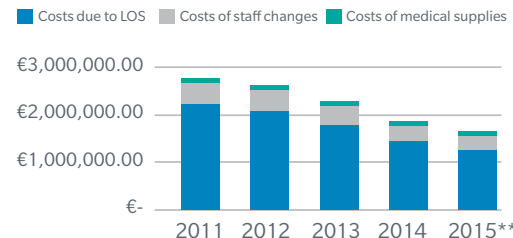
with constant volumes



In 2015 € 1.192 lower treatment costs per patient compared to 2011

Cost Analysis

with constant volumes



43% decrease in total costs due to:

- Shorter LOS
- Dedicated orthopedic staff time
- Optimisation of clinical processes

* As volume reduction is not a logical consequence of RR, volume is kept constant in baseline year 2011. Data provided for 2015 has been extrapolated as was only provided for first 5 months

** Cost data for 2015 has been extrapolated from May to December to keep calculations consistent, cost offset of EPO excluded from calculation due to external budget allocation, however included reduced drain and catheter usage, less blood administration, usage of tranexamic acid, compression stockings and education materials

This publication and all content, artwork, photographs, names, logos and marks contained in it are protected by copyright, trademarks and other intellectual property rights owned by or licensed to Zimmer Biomet or its affiliates. This brochure must not be used, copied or reproduced in whole or in part for any purposes other than marketing by Zimmer Biomet or its authorised representatives. Use for any other purposes is prohibited.