



UKSH Case Study

UKSH and ORI

ORI was the founding shareholder of UK Specialist Hospitals Ltd, (UKSH) a developer and operator of specialty hospitals (known as 'treatment centres' in the UK). UKSH was widely regarded as delivering the highest quality of care - with benchmark efficiency and outstanding patient service and satisfaction- while participating in the 'Independent Sector Treatment Centre' (ISTC) programme. This programme was initiated by the UK government in 2003 to reduce lengthy National Health Service waiting lists for elective care in orthopaedics, general surgery, ophthalmology and other clinical disciplines. At the start of the programme, a patient commonly could wait 1-2 years from a GP referral to the time a procedure was done. Under the programme, which went through two waves of central government procurement, the NHS contracted with private sector companies, including UKSH, to build and then operate facilities. These companies provided all clinical as well as support services in rendering elective day case and inpatient care for National Health Service cases, initially those from long waiting lists.

Within 'Wave 1' of ISTC programme in 2004, ORI, partnering with the New York Presbyterian Hospital, secured a £ 110 million five-year contract to undertake 11,700 day case and inpatient cases annually in a facility to be built in the Somerset town of Shepton Mallet. At the signing of this contract, ORI along with an equity partner established UKSH. Throughout the subsequent nine-year history of UKSH - the company was sold to Care UK, another ISTC provider, in 2013—ORI's Chief Executive served as Chairman of UKSH while ORI's Chairman

served as corporate medical director and head of UKSH's Clinical Advisory Board. Also, throughout the 9-year period, ORI maintained a management services agreement with UKSH, overseeing the work of UKSH's management staff.



Contracting with the NHS successfully

UKSH sustained a highly successful contracting history within the ISTC programme.

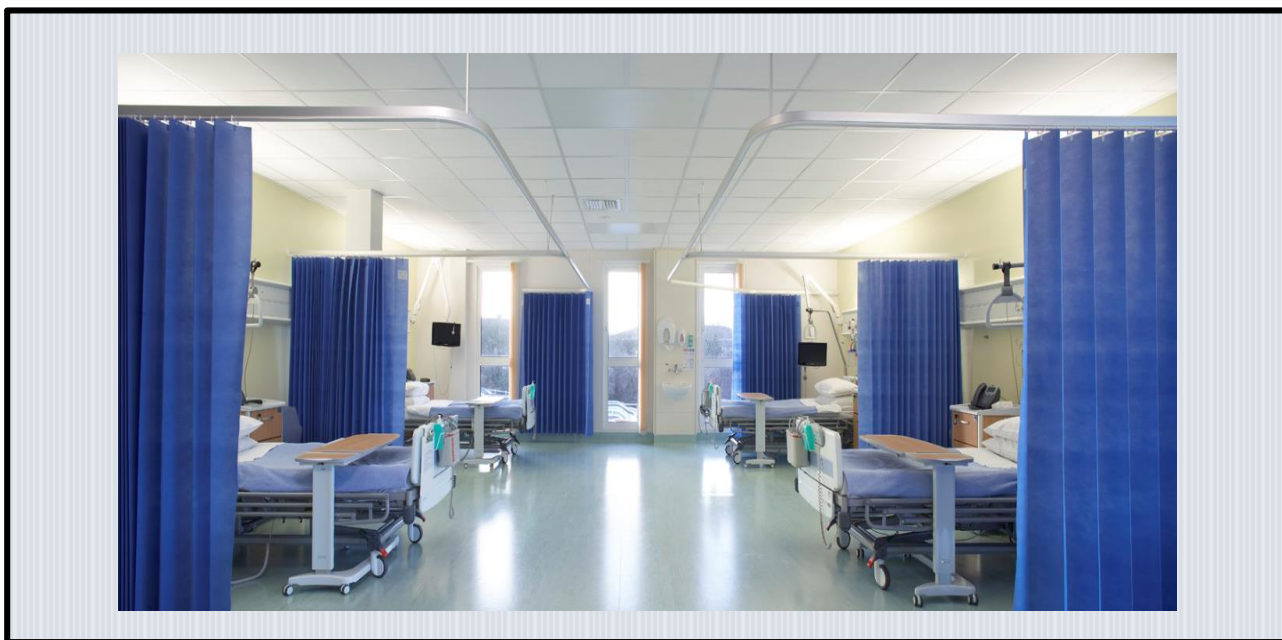
- The 4 operating theatre, 34 bed Shepton Mallet facility was commissioned and opened in 2005 - on budget and on time - in a 46 week construction and pre-opening period from a greenfield site start. After five years of operations, UKSH won a tender to extend its operation of the Shepton Mallet facility for an additional 3 years in 2010.
- Before that, in 2008, UKSH was awarded a £236 million six-year contract, the largest in Wave 2 of the ISTC programme, for providing 20,900 elective procedures annually in Bristol, Gloucestershire and Wiltshire. It built and ran a four operating theatre and 36 bed facility in Emerson's Green near Bristol serving day case and inpatient cases and a two theatre facility in Devizes in Wiltshire serving day cases.. The new contract also called for renovating portions of a hospital in

Cirencester in Gloucestershire to provide day case service there.

- UKSH won a tender in 2010 to replace Care UK in a 3-year extension of the ISTC contract in Plymouth, a two operating theatre, 24 bed facility providing care for 2,800 day and inpatient cases annually.

At the time of its sale in 2013, UKSH had annual patient care revenues of close to £60 million, nearly all earned in serving NHS patients under ISTC contracts. At that point UKSH was undertaking 27,500 cases annually in its five facilities.

By its last year of operation, UKSH employed 465 staff, including 65 doctors (surgeons, anaesthetists, and others under its doctor employment model) and 165 nurses. UKSH recruited its doctors largely from the EU in the first wave of contracting as it was restricted from employing doctors (and nurses) who had recently worked in the NHS itself. This restriction was lifted in second wave contracting and UKSH employed clinicians who had recent (and in some cases on-going) experience in NHS facilities.





Achieving high performance through a focused clinical approach

UKSH benefited from rendering care for a limited and focused array of cases with high volumes of specific types. The original Shepton Mallet contract called annually for 1000 primary hip and knee replacements, 3,400 other orthopaedic cases, 4,400 general surgery cases, largely endoscopy cases but also hernia repair and laparoscopic cholecystectomies, and 2,500 ophthalmology cases, largely for cataracts.

By 2013 UKSH was carrying out 2,700 primary joint replacements annually in its facilities along with 7,500 general surgery cases and 4,100 ophthalmology cases. Over its nine years, UKSH performed a total of 15,000 total joint replacements, a cumulative experience, for example, that enabled detailed and continual improvements in the quality and efficiency of its work following a 'focused factory' approach.

UKSH was responsible for providing care along complete pathways from a GP referral for elective work: The pathways included outpatient assessments, pre-operative assessments, the

procedures themselves, post procedure ward care to discharge, and follow up assessment visits once patients were returned to GP care.



Contrary to what had been argued by some observers, UKSH was *not* selective in the type of patients it cared for, with inclusion criteria extending to mid-level ASA III patients. As a consequence, UKSH's case mix, within the case categories it performed, closely mirrored the mix and complexity of patient types of a typical NHS hospital, less only the 2-3 percent of patients whose co-morbidities would necessitate care in a general hospital.

Accordingly, UKSH's excellent performance record definitively was not based on 'cherry picking' but rather on rigorously following a high-performance approach in its focused facilities.

Demonstrating outstanding clinical quality

UKSH's approach was recognized as distinctive both in the quality and efficiency of care. In formally opening the Shepton Mallet facility after one year of actual patient service, Patricia Hewitt, then Minister of Health, noted that UKSH's approach was 'transformative.'

- In 2011,(the year private facilities were included in rankings), UKSH was ranked number one in the UK in Dr. Foster Hospital Guide for the quality of its knee replacements and number three in the quality of its hip replacements.
- UKSH was among the top five UK institutions in the longevity of its joint replacements without need for revision after five years.
- Throughout the life of its contracts with the NHS, UKSH facilities met or exceeded every quality related key performance indicator in over 95 percent of reporting months. There were zero MRSA or other hospital acquired infections in over 90 percent of the months of service.
- UKSH took the lead in presenting a breadth of quality metrics in publicly available quality reports and directly on its web site.
- UKSH maintained a through-going clinical governance regime with quarterly sessions of its clinical advisory board, this composed of distinguished doctors from the US as well as UK (including the former heads of the British Orthopaedic Association and the Royal College of Anaesthetists)) who undertook detailed reviews of performance, including

reviews of all sentinel events, along with monthly conferences in each clinical discipline, and detailed monthly reviews of quality metrics at each UKSH board meeting.

Quality metrics reported on the web - example

Total joint replacements: Total 1000		
Measure	Total	%
Unplanned return to theatre	3	0.30%
Transfer of patient to another provider for IP care (excludes rehab)	14	1.40%
Unplanned re-admission within 29 days of discharge (*)	29	2.90%
Surgical repair within 14 months/revision	2	0.20%
Mortality (within 7 days)	0	0.00%
Acute myocardial infarction	2	0.20%
Pulmonary embolism	3	0.30%
Deep vein thrombosis	4	0.40%
Cerebral vascular event	0	0.00%
Hospital acquired infections (MRSA & C.difficile)	0	0.00%
Deep wound infection needing treatment at UKSH	1	0.10%
Dislocation % by hips only	2	0.37%
Average length of stay	3.8 days	

From UKSH quality account 2010-11

UKSH's quality results were on par with those of outstanding international institutions in the US, the UK, and elsewhere in Europe.



Using IT-enabled, integrated care Pathways in achieving clinical quality success

ORI was instrumental in overseeing and installing detailed integrated care pathways for each of the major clinical case types undertaken at UKSH. The pathways specified steps and guideline protocols to be followed, structuring detailed documentation in a check-list format displayed on computer screens for each member of the clinical team at each stage of a case. Ten such stages were specified, for example, for a hip or knee replacement episodes of care with checklists for surgeons, anesthetists, nurses and therapists. In completing documentation and checklists at each stage, team members constructed and completed a detailed electronic medical record for each patient, documenting actions at each stage and informing and guiding team members in subsequent stages of care.



The pathways embodied a wide array of international best practice protocols and processes ranging from what questions to be asked and information to be gathered at assessment stages, to specific protocols of care at the procedure itself (including such generic guidelines as for immediate pre-procedure administration of antibiotics, proper use of wound drainage processes and anticoagulants and specific guidelines on discharge criteria from recovery to ward care.) At the ward stage of care, pathways specified projected dates of

discharge to be followed rigorously, with the content of care for each day of stay on a ward, including specific routines for relevant team members for rehabilitation and re-enablement (processes starting within the recovery area itself and in ward care afterwards.)

ORI's own clinicians initially supplied perspectives on best practices to embody in these pathways along with assistance from doctors and nurses from the distinguished New York Presbyterian Hospital. (The Shepton Mallet facility during its first four years of operation was formally an affiliate of New York Presbyterian.) To inform pathways for the second round of UKSH contracting, ORI arranged for assistance from the Vanderbilt University Medical Center, a leader in evidence-based medicine and pathway development in the US. Over time, however, pathways were perfected by clinical and administrative leaders in UKSH itself, supplemented with guidance from UKSH's Clinical Advisory Board. World-leading anesthesia techniques, for example, including an array of regional blocks and intrathecal anesthesia administration in joint replacement procedures were introduced by UKSH's lead anesthetist, resulting in shorter procedure times in theatres and shorter times in recovery areas along with the ability to manage pain for patients to such an extent that joint mobilization therapy could begin as early as the stay in the recovery area. Advanced anesthesia was a critical component of UKSH's pioneering leadership in 'enhanced recovery' efforts.

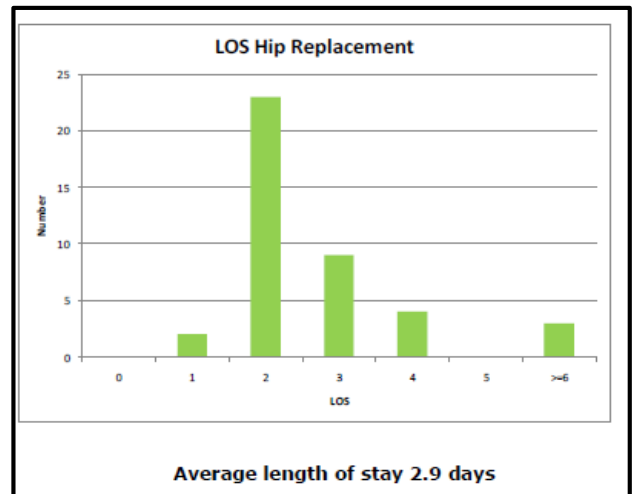


Achieving distinctive efficiencies

The combination of focused facilities and the rigorous application of pathways of care enabled UKSH to achieve what ORI believes was the most efficient operations among UK hospitals, rivaling performance of the top decile of US hospital operations.

Key efficiencies were in faster case throughput:

- By its last year of operations, UKSH achieved 2 day median lengths of stay for hip replacements in its Emersons Green (the UKSH facility with the highest volumes) and was beginning to undertake hip replacements on a 24 hour basis for lower risk patients.
- UKSH performed over 20 percent more of its general surgery cases as day cases than was typical of NHS hospital performance
- UKSH made effective utilization of staffed theatre time (the proper measure of theatre utilization) achieving levels among the highest in the UK if not the highest, with extensive use of full day lists, complete filling of these lists at least four weeks in advance, theatre start times consistently with 10 minutes of scheduled time, low rates of cancellations in part due to pro-active calling of patients seven days and two days pre-surgery, low room turnaround times (commonly achieved 20 minutes on average for complex cases) and low case times themselves, for example, UKSH performed 16-18 cataract operations in a standard theatre day.



LOS performance for Emersons Green Treatment Centre October 2012

The pathways and their best practice protocols and guidelines helped structure further efficiencies:

- Making efficient use of staff, for example, minimizing the need for anaesthetists in pre-op assessments, and extending the roles of ward nurses to provide timely and on-going rehabilitation and re-enablement service to patients in tandem with therapists.
- Minimizing sources of error and delay, for example by capturing such information as patient allergies and need for special equipment, transmitting these within the electronic medical record to theatre scheduling and planning staffs.
- Standardizing equipment and implant use, UKSH was able to achieve what ORI understands was the lowest costs for implants in the UK.

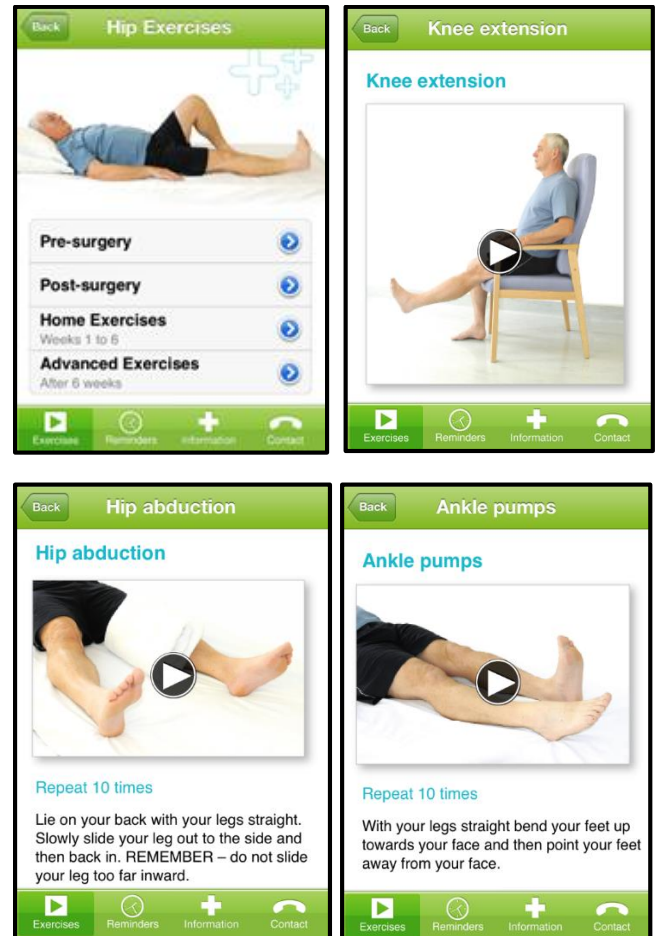
Achieving and maintaining very high levels of patient service and satisfaction

UKSH sustained as well a distinguished record of patient service, providing patients with a distinctive and caring experience in their stays. In a majority of months, 100 percent of discharged patients surveyed reported they would seek care at UKSH facilities again and recommend UKSH to friends and relatives. In no months were fewer than 97 percent of patients supplying this positive evaluation. UKSH's Emersons Green facility was rated among the top 10 best in the UK in patient service in the 2011 Dr. Fosters Hospital Guide.

ORI's view is that the pathway approach along with conducting operations in a rigorously planned manner was also central to distinctive success in delivering a first-rate patient experience:

- At the beginning of pathways, patients received an overall education on the procedures they were about to have, with accurate detail on when these would be scheduled, what to expect at each stage, and when they and relatives could expect a discharge. At assessments, total joint replacement patients were assigned to appropriate pathway categories with accelerated stages for lower risk, less complex cases (in later years, for one-day hip replacements.) Conversations with clinicians and written descriptions were supplemented by UKSH's smartphone and tablet app demonstrating pre-op exercises.

Screen shots from UKSH physio app for patient education



At early stages patients themselves participated in their assessments through extensive health questionnaires.

- Because processes were substantially 'in control,' with scheduling done close enough to the actual procedure dates, outpatient assessments, diagnostics and pre-operative assessments could be and were combined in convenient one-stop visits (in over 85 percent of the cases for total joint replacements) with defined dates for the procedure provided on the spot.
- Average wait times from these one-stop visits to the procedure were 5 weeks for procedures. Overall, referral to treatment times in UKSH

facilities were 6-7 weeks, considerably less than typical wait times for elective care in NHS hospitals.

- At the beginning of each stage of a procedure patients were told what to expect (with confidence that the information would be correct). A commitment to of respectful interaction was supported by targets set for minimizing time intervals from when patients entered UKSH facilities to the time when a substantive interaction occurred, with performance against these targets monitored in UKSH's information system. For most inpatient as well as day case procedures patients were scheduled to arrive at facilities throughout the day of the procedure to avoid long and stressful waits typical of procedure days in other hospitals.
- Patients were expected to participate in their own quick re-habilitation and re-enablement with exercises again identified in UKSH's smart-phone and tablet apps transmitted on patients TV screens, contributing to very rapid and intense re-enablement by the nursing as well as physiotherapy teams.
- Post discharge, patients had direct phone access to ward nursing staff and others to confirm expectations and go over problems. UKSH's app identified an array of post-discharge exercise to speed long term recovery.

Thus, ORI believes UKSH's recognition for outstanding patient service was based on a detailed commitment to educate patients on what to expect along pathways of care, and of course, to deliver on these expectations with precision and with unparalleled clinical quality, while in doing so employing processes designed to be respectful

of patients' time. UKSH received hundreds of unsolicited letters from patients stressing the unusual caring, smooth teamwork and commitment to educations of front- line clinical and support staffs.



Though these aspects of patient care were central ORI believes to UKSH's success in providing an outstanding patient experience, UKSH was also distinctive in providing catering and other 'hotel' services to patients for which it was recognized by an award from Laing and Buisson for highest achievement of hotel service standards among UK hospitals.



Achieving an economic success

UKSH's successful performances in contracting, in quality of clinical service, in operating efficiencies and in patient experiences was reflected in very good financial performance. UKSH's EBITDAR margin in the last year of its operation was 19%, this with over 97 percent of its revenues from NHS contract sources.

UKSH's sale in 2013 to Care UK, whose ISTC operation was approximately of equal scale to UKSH's, was driven by three concerns:

- The central government's decision not to follow a growth strategy for ISTCs.
- A projection of continued stringency in reimbursement rates ('national tariffs') for NHS care as part of government's overall approach of public sector austerity.

- In this emerging environment the imperative to spread overhead costs over larger volumes achievable only through merger.

With the sale complete, ORI's equity partner in UKSH achieved a 2.8X cash multiple on its investment and an internal rate of return on its investment of 26 percent.

