HCA Hospitals
World-Class Healthcare

HCA International Quality report

Quality, innovation and clinical outcomes in HCA hospitals

DECEMBER 2013

Contents

1. Executive summary

Dr Thomas Frist, Sr., co-founder of HCA, said: “Bettering the human condition is the greatest good any individual can achieve.”

Since its founding in 1968, patient-centred care has remained at the core of what HCA does. HCA’s founders believed that a group of hospitals, using private funding and collaborating with clinicians, could provide superior, high-impact healthcare in communities across the world. One of the USA's first hospital companies, HCA created economies of scale, worked closely with local physicians and used innovative business practices and private capital to improve quality and reduce costs.

Today that approach holds true. Worldwide, HCA hospitals are responsible for 20 million annual patient episodes, and the company’s clinical resource provides a natural platform for “pragmatic research”, that is, analysing real-world variation or comparing alternate acceptable practices to identify best outcomes. HCA’s Clinical Services Group is a team of physicians, nurses, data analysts and other technical experts that synthesise evidence and reduce unintended variation by promoting best practices in areas such as infection prevention and perinatal safety. For example, partnerships with the March of Dimes Foundation in the US have determined that elective delivery before 39 weeks is harmful and shown how to improve perinatal safety by changing obstetrician practice through “hard stop” policies that stop early elective deliveries.

In the UK, HCA’s six hospitals, three ventures with NHS hospitals and 3,000 leading consultants provide exceptional care for almost 500,000 patients a year.

That exceptional care means HCA International patients have superior outcomes[1] to those treated elsewhere. By way of example:

- HCA International’s observed five-year survival rate for breast cancer is significantly higher than the national age-standardised relative rate (93% vs. 85%). This means 28 HCA International patients who would have died are still alive five years after diagnosis.
- HCA International patients are 50% less likely to need revision surgery for hip or knee replacements after five years than those treated in the NHS. This means 103 fewer revisions are needed, saving approximately £1.9 million a year.
- HCA International patients are also 50% less likely to die after an aortic valve replacement than average

High-quality care not only provides better outcomes for patients, it is often more cost-effective. An example is the use of evidence-based guidelines in chemotherapy: two

[1] Please refer to the final section of this report for information regarding data sources, assumptions and calculations made throughout

US studies have shown that this delivers the same outcomes for a lower overall cost, with one noting that "outpatient costs were 35% lower for on-Pathway versus off-Pathway patients" [2]. As part of its high-quality approach, HCA has developed over 200 evidence-based chemotherapy protocols, which are now in daily use. This is one of many examples of how HCA's high quality is ensuring delivery of cost-effective care.

The level of quality achieved has enabled HCA International to compete in the international healthcare market, delivering wider benefits to the UK economy.

To achieve these outcomes, HCA International has built a hospital network which is unique in the UK market. This tightly integrated network of full-service hospitals is unmatched by any other provider, and enables HCA International to invest in quality efficiently and effectively. The level of investment it has made is testament to HCA International's commitment to delivering lasting high-quality healthcare.

Over the past 10 years, HCA International has invested [redacted] in new and existing infrastructure, in addition to building excellent clinical support teams, in order to deliver quality benefits for patients. HCA International now houses the most advanced technology and network capabilities in Western Europe:

- HCA was the first in the UK to offer the CyberKnife, to more successfully treat tumours without damage to healthy tissue. Other specialist cancer treatments include the NanoKnife, da Vinci Si Robot and Gamma Knife (the latter in collaboration with Barts Health NHS Trust)
- A JACIE-accredited bone marrow transplant unit in partnership with the NHS, improving outcomes for cancer patients
- An internationally recognised advanced neurological unit to improve outcomes for stroke and trauma victims
- Pioneering techniques to genetically profile individual cancer tumours and personalise treatment plans
- HCA is the only private hospital group in the UK with a dedicated clinical research unit (the Sarah Cannon Research Institute) offering patients early access to trials in new cancer drugs (the facility is currently running 26 trials, including the largest TDN 1 drug trial in Europe)
- HCA was the first in the private sector to offer a hybrid cardiovascular laboratory to perform pioneering minimally invasive heart surgery on high-risk patients
- The only private hospital company to provide level 3 intensive care units in *all* hospitals, improving patient safety

[2] Cost Effectiveness of Evidence-Based Treatment Guidelines for the Treatment of Non–Small-Cell Lung Cancer in the Community Setting, *Journal of Oncology Practice 2010*. Pathways, Outcomes, and Costs in Colon Cancer: Retrospective Evaluations in Two Distinct Databases, *Journal of Oncology Practice 2011*

- The only private provider with a specialist paediatric cardiac surgery unit where infants and children from across the world are treated
- The only private provider to run an acute paediatric neurological rehabilitation facility

There is a growing body of evidence suggesting that networks are key to driving quality in healthcare. For example, the recent NHS 'Safe and Sustainable' review of children's congenital heart services concluded that "networks of care and fewer large surgical centres will save lives"[3].

HCA International's six hospitals are situated in close geographic proximity, enabling them to work together to create a unique network of high-quality care. This tightly integrated network of full-service hospitals differentiates the system from other providers and enables higher levels of quality to be achieved. Network integration supports central investments in quality programmes and infrastructure, which benefit all hospitals. Seamless patient movement between hospitals ensures that patients can transfer to the most appropriate location for their care, and investments in one location benefit patients across the whole network. Best practices from across the network can be formalised and spread to drive continuous quality improvement in all hospitals. HCA International's network has been the foundation which has supported successful delivery of world-class quality healthcare and will continue to support this in the future.

The Competition Commission has rightly identified that there is a lack of transparency in hospital quality across the UK private healthcare market. This shortage of published quality information is a symptom of an underlying issue for many providers: building the infrastructure required to collect meaningful clinical outcomes data is difficult and requires significant investment of time and resources. The investment required is continuous: software and databases must be maintained, and dedicated staff must ensure data is captured and managed to enable reporting of quality outcomes.

HCA has gone further than any other private healthcare provider in the UK to collect and publish this crucial quality information. For cardiac surgery alone, HCA spends [redacted] per year collecting detailed outcomes data, and is still the only private provider to submit to the national Central Cardiac Audit Database (CCAD), which monitors the performance of cardiac centres throughout the NHS. Investment in clinical quality and transparency at HCA is further demonstrated through the publication of the "Award-Winning Quality 2012" booklet and website, which provides a transparent picture of the care delivered at HCA hospitals.

Throughout this report HCA's quality is compared to available benchmarks; these benchmarks are often at the national level due the scarcity of published quality information. Although definitive evidence is not publically available, HCA believes

[3] NHS 'Safe and Sustainable' review of children's congenital heart disease services, 2012/13

that its commitment to quality delivers outcomes that are superior to providers across the board. HCA therefore welcomes the industry trend towards transparency.

HCA International believes that the conclusions and remedies presented by the Competition Commission are flawed, in particular with regard to divestiture of [redacted]. Divestiture of [redacted] would have the substantial adverse impact on patients of deterioration in clinical quality and patient experience. These negative impacts would mean that [redacted] would no longer benefit from HCA's network, reducing quality there; while the HCA network would be weakened by the removal of [redacted], reducing HCA's ability to lead on quality and innovation across the UK.

HCA offers a range of clinical services. In the limited time available to produce its response to the Competition Commission's Remedies Notice, HCA has taken as case studies six of its largest clinical services in order to illustrate the importance of quality, innovation and clinical outcomes in its hospitals, and how these would be affected by a divestiture remedy:

- Breast cancer
- Prostate cancer
- Neurosurgery
- Blood cancer
- Cardiac care
- Orthopaedics

The above highlights only two cancer types; HCA also operates numerous other cancer excellence programs and would be delighted to share additional information if helpful.

2. Impact of divestment on quality

The Competition Commission has preliminarily concluded that divestiture of HCA hospitals would increase competition. **HCA disputes this conclusion and further believes that disrupting HCA's network would degrade the quality of UK healthcare provision, ultimately costing lives.**

HCA has reached this conclusion because:

1

HCA saves lives by delivering **superior quality** healthcare

- Breast cancer: 28 lives saved each year
- Cardiothoracic surgery: half the national average mortality rate

2

HCA's superior quality is enabled by its **unique, tightly-integrated network**

- Large full-service hospitals
- Small geographic area
- Major city

3

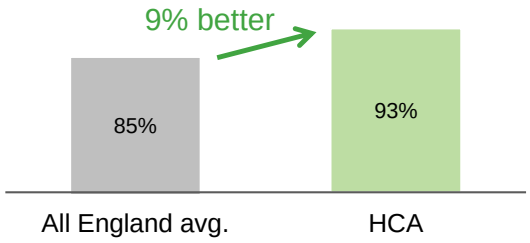
Divestment would put lives at risk by lowering quality now and in the future

- Divested hospital no longer sees benefits from HCA's unique network
- HCA network's ability to drive quality is lowered

3. HCA's superior quality[4]

Breast Cancer

5-year survival



140 lives saved over the next 5 years
above what would be saved if treated elsewhere

41 days

quicker than the NHS **from diagnosis to treatment**, saving

15,000 days

of **patient anxiety** or **disease progression**

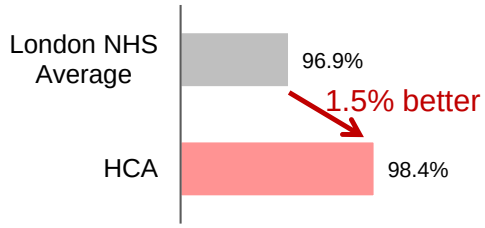
Cardiac Care

Mortality rate for aortic valve replacements is

50%

better than the NHS

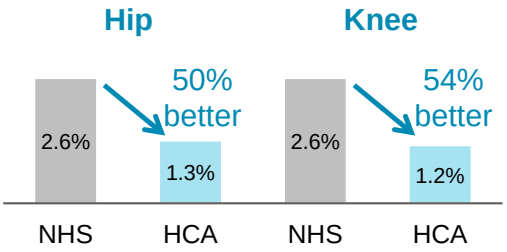
All cardiothoracic surgery, in-hospital survival



30 lives saved over the next 5 years

Orthopaedics

Primary hip and knee replacement, 5-year revision rate



103 revisions and £1.9 m saved per year

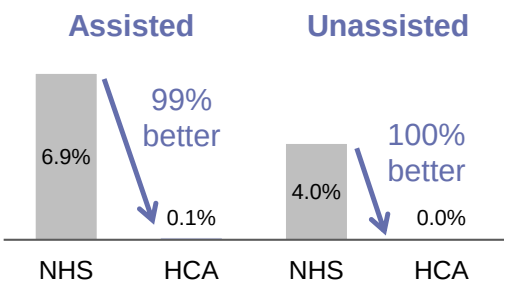
100%

of hip replacement patients reported **post-operative improvement**, versus 95.8% in the NHS

[4] Please refer to the final section of this report for information regarding data sources, assumptions and calculations made throughout

Obstetrics

First-time mother 3rd and 4th degree perineal tear rate



Rate of emergency C-section following induced labour

85 / 93%

primiparous multiparous

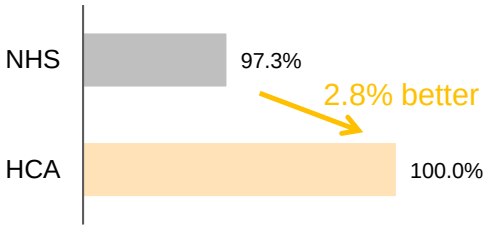
better than in the NHS

Other Metrics

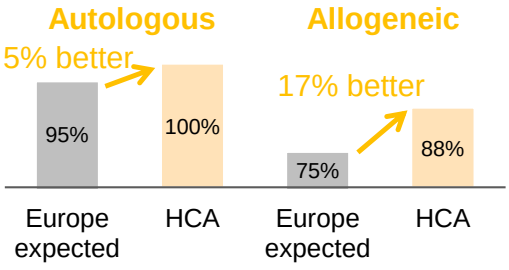
100%

survival rate for thyroidectomies and **bariatric surgery**, both higher than in the NHS

Paediatric CNS tumour surgery, 30 day survival



Bone marrow transplants, 100-day survival



13 lives saved over the next 5 years,

26 - 40%

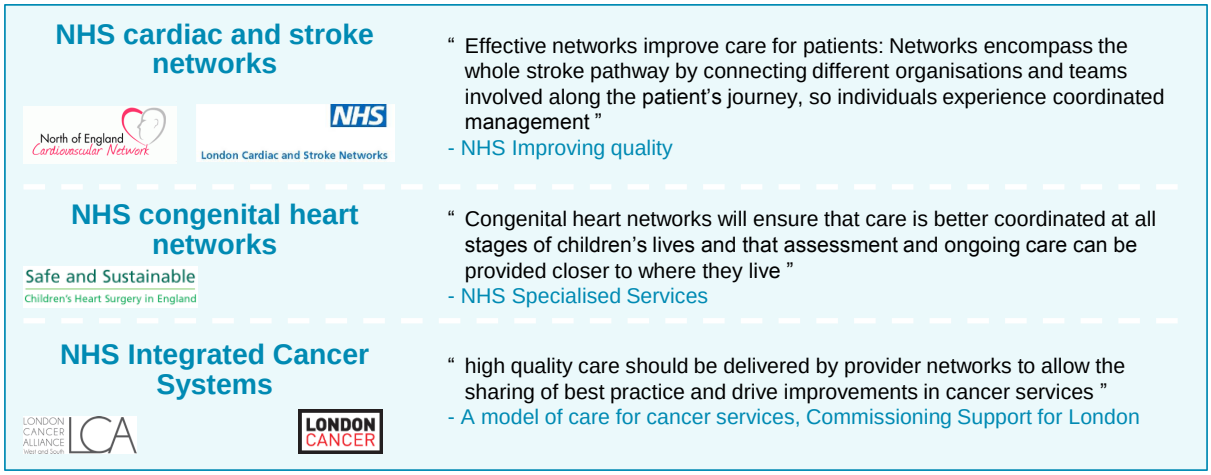
under 35 yrs 35 – 37 yrs

better success rate for IVF in women aged 37 or younger, compared to the national average

4. HCA's unique, quality-enabling network

The value of networks in healthcare is widely recognised and many examples exist in the UK and internationally. Figure 1 shows three UK examples.

Figure 1: The value of networks in healthcare



HCA's network is unique in the UK private healthcare sector for three reasons: it consists of larger-than-average full-service hospitals; the hospitals are located closely together; and the network is located in a major metropolitan city.

In combination, these factors mean HCA's network is extremely tightly integrated, delivering a number of benefits:

Figure 2: The patient benefits of HCA's tightly integrated network

1. Seamless transfer between hospitals means investments at individual sites are **accessible to all patients**
2. Quality functions can be centrally shared and therefore larger and better equipped, **raising the standard and consistency of care**
3. Activity can be focussed at certain locations, giving complex activities the "critical mass" needed for **specialisation and safety**
4. Benchmarking across the network is used to **improve quality and drive innovation**

By leveraging these unique benefits and investing [redacted] over the last 10 years, HCA has achieved an unparalleled level of quality. This has benefited UK consumers and enabled HCA to compete in the international healthcare market, bringing wider benefits to the UK economy.

To illustrate, Figure 3 shows tangible examples of how the HCA network has utilised a number of key quality levers in the pursuit of superior quality.

Figure 3: Example HCA quality levers

Quality lever	Description	HCA network examples
1 Invest in cutting-edge technology	Offering patients and clinicians access to the most innovative equipment and treatments improves quality outcomes, attracts the most highly skilled clinicians and builds the evidence base that enables adoption across the wider health economy	• HCA invested [redacted] in the da Vinci Surgical System, which provides computer-enhanced, minimally invasive surgery • This innovative technology is now available to all patients, via seamless transfer across the HCA network • HCA is only able to achieve the required activity levels to support this investment by spreading its use across its full network
		• HCA made a [redacted] investment in the industry-leading CyberKnife which delivers highly focussed radiation therapy to treat surgically complex cancers • Network patients can now visit The Harley Street Clinic to benefit from this innovative treatment • HCA's investment in the first UK CyberKnife was challenging. (For example, payers were reluctant to reimburse CyberKnife treatment.) There are now multiple CyberKnife's in the UK public and private sectors – another example of HCA driving innovation in the UK
2 Develop central quality monitoring systems	Quality monitoring dashboards, data analysis support and informatics are required to identify and address areas of weakness early on, as well as to create a positive feedback loop to drive continual improvement	• Cardiac surgery patient information and outcomes from across the network are recorded centrally in HCA's Dendrite cardiac surgical database • This represents an annual investment of [redacted] on dedicated quality staff, software and databases • The investment is possible as it benefits multiple network locations • The system supports comparison of trusted outcomes data across the network, plus creates a positive "feedback loop"
		• HCA uses a centralised informatics function, the single Mosaiq database and dashboards to monitor the delivery of chemotherapy across the network • Transparency and regular monitoring ensures quality is of the highest standard • The system enables swift intervention as soon as issues arise

Quality lever		Description	HCA network examples
3	**Define, codify and monitor clinical pathways**	Adherence to well-defined evidence-based clinical pathways reduces unwarranted variation in care and maintains high quality standards	• HCA has leveraged expertise from across the network to define and document protocols for the delivery of chemotherapy • Over 200 chemotherapy clinical protocols have been codified and are now in daily use across the network • Ensures that patients receive the correct, evidence based protocol for their profile (cancer type, stage, patient health, treatment intention, etc.) • As described previously, evidence-based chemotherapy has been proven to deliver more cost-effective care[2]
			• Utilising the internationally recognised QT Audit system and bespoke internally developed information systems, the central HCA quality team monitors 17 key breast cancer quality metrics across the network to ensure consistency and quality • For example: Average time to 1st radiotherapy, % of women undergoing repeat operation, % of operations where clear margins were achieved, % of mastectomy patients undergoing immediate reconstruction • This central team consists of 10 people, representing a significant annual commitment
4	**Providing care in the most appropriate setting**	Balancing clinical focus and specialisation with patient convenience and localisation to maximise clinical quality, safety and patient experience	• Cardiac patients receive diagnostics and support services in multiple, more local network sites for maximum convenience and experience (e.g. via a facility with a non-clinical look and feel) • When surgery is required, patients are seamlessly transferred to one of the network's 3 specialist cardiac surgery centres, where focus means quality and outcomes can be optimised (e.g. via specialist wards and staff)
			• To ensure complex activity is focused, patients requiring specialist orthopaedic treatments move across the network from local outpatient clinics to the network's major orthopaedic treatment centres • Focused activity at these centres supports development of specialist theatres and wards with expert nursing, plus facilities tailored to patient needs (e.g. walk-in showers for patients with limited mobility)

Quality lever		Description	HCA network examples
5	**Integrate across care pathways**	Enabling consultants, nurses and other health professionals to work together across specialties to provide the best possible treatment for patients	• HCA has implemented the private sector's first full prospective cancer Multi-Disciplinary Team meetings (MDTs / MDMs) made up of pathologists, surgeons, clinical and medical oncologists, specialist nurses, etc. from across the network to discuss each patient and ensure the best possible treatment plan is adopted • Full speciality representation is possible as key personnel attend from across the HCA network • The network enables central investment in required coordinating personnel, infrastructure and facilities such as high quality teleconferencing and image sharing software
6	**Provide on-going supportive care**	Fully integrated on-going care such as rehabilitation and survivorship support is key to preventing additional difficulties such as revisions, complications and readmissions	• Living Well, a charitable foundation created by HCA, focuses on providing cancer patients with support for post-treatment care, including meditation, healthy eating and exercise • Cancer patients from across the HCA network benefit from access to the Living Well programme • Bringing together the right personnel, to meet a large patient need has only been possible through the HCA network
7	**Conduct high-quality research and development**	Independent or collaborative research into new technologies and treatment methods advances clinical quality in both the participating organisations and across the field of medicine	• The network provides HCA with a critical mass of patients to support investment in a new molecular profiling laboratory in collaboration with major partners • The lab is fully integrated with the treatment network, benefiting all network patients
			• The HCA network now incorporates the only private research and clinical trials unit in the UK • This gives highly complex patients from across the network access to the latest treatments and trials

5. Risks of divestiture

HCA is concerned that the Competition Commission's divestment "remedy" is against the prevailing global trend of integrated hospital systems, and would have significant negative impacts on quality of care in the UK.

At HCA, quality is not an "add-on" at each of its facilities. Rather, it is the fabric that knits all of its facilities together in a joint effort to improve care and patient outcomes. Any divestment would impact all areas of quality, with adverse consequences for the patients it serves both now and in the future.

There are two scenarios for any divested hospital: either it enters a much weaker, less tightly integrated private hospital network, or it becomes a standalone operator. In either case, the hospital will no longer benefit from HCA's network infrastructure and investment, nor will it have access to quality monitoring systems and shared diagnostic and surgical equipment.

No other hospital group has shown the same commitment to quality and producing exceptional outcomes, or the level of innovation and investment HCA has. Therefore it is not reasonable to assume any new hospital owner would demonstrate these commitments. Scenarios of likely deteriorations in quality following divestment include:

- Patients require a treatment option no longer available with HCA, causing delays in treatment, and possibly repeat diagnostics, or transfers to the NHS
- Highly trained and respected clinicians in [redacted] are cut off from the HCA network, prompting some to seek a position at one of the remaining HCA network facilities, seriously impacting quality in [redacted]
- Patients in [redacted] no longer benefit from the seamless movement among HCA hospitals, the advanced equipment available at other sites, or from the integration of pathways among HCA providers and facilities, leading to increased delays and complications in treatment
- A narrowed patient base limits cost-sharing among facilities, slowing implementation of new research, and reducing specialisation
- Certain clinical pathways are disturbed, forcing some HCA patients to seek the treatment they require at a non-HCA hospital. Over time the risk of a serious miscommunication error becomes significant, as the patients' medical records become fragmented (vs. HCA's seamless system)
- The ability to examine patients' complete "episode of care" (from presentation, diagnosis and active treatment, to rehabilitation, support and discharge) and recommend improvements is lost, negatively impacting future patients
- HCA's comprehensive and holistic approach to ongoing supportive care is compromised, as crucial patient information (e.g. what the presenting medical problem was, how it was diagnosed and treated, the prognosis, and how the patient and the family responded to this sequence of events) is not available

- Removal of patients and highly skilled clinicians from the HCA network degrades HCA's ability to initiate and support high-quality research and development, depriving patients of treatment opportunities that might otherwise be available

HCA encourages the Competition Commission to re-evaluate its preliminary recommendations and consider the severe risks they present to the lives of patients.

6. Breast cancer case study

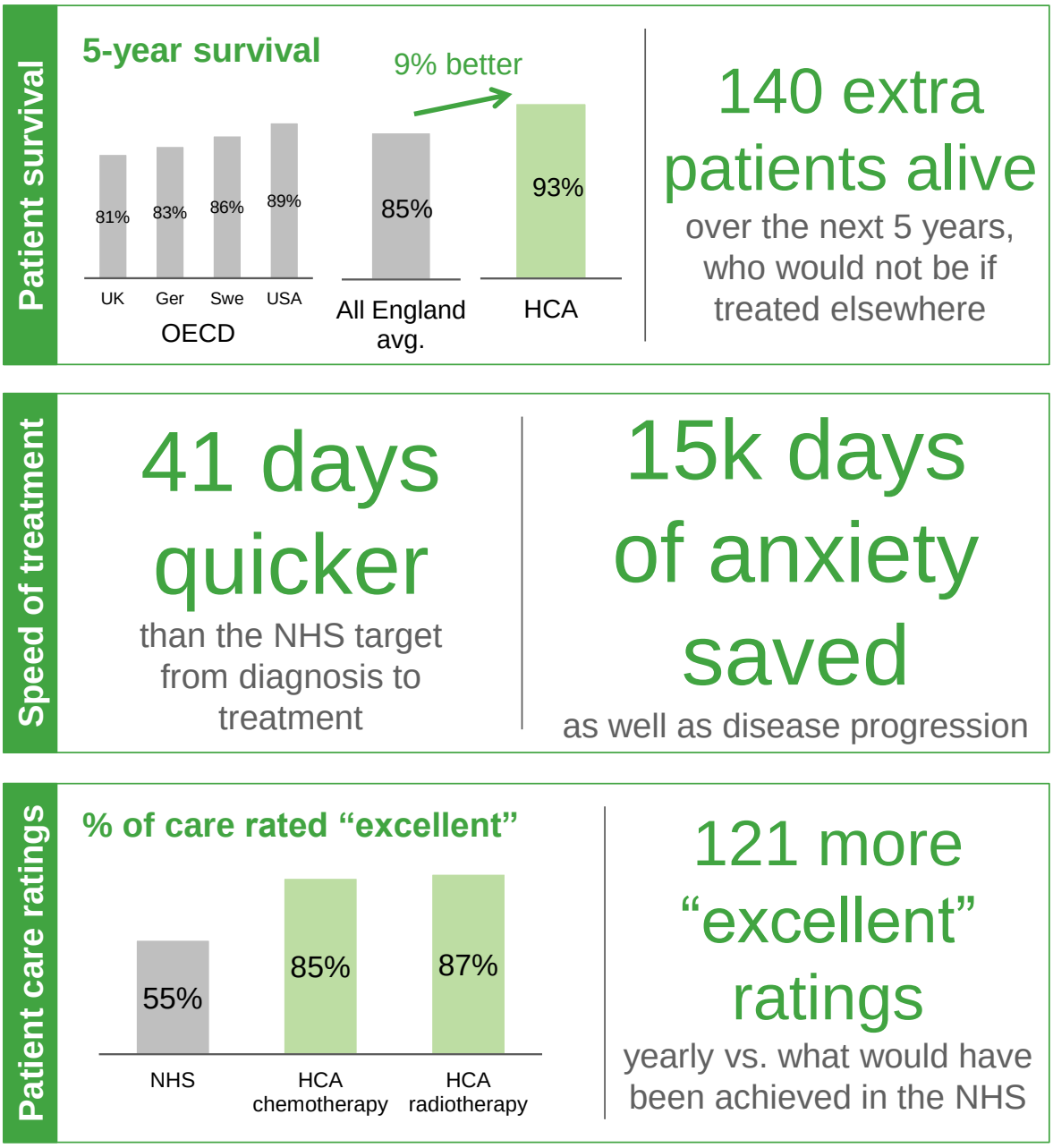
6.1. HCA's superior breast cancer outcomes

HCA has worked tirelessly to create exceptional outcomes for breast cancer patients. These superior outcomes have been achieved through its 'Network of Excellence' programme: a 3-year review of cancer services led by 20 of the UK's most prominent clinicians, many of whom hold senior positions in leading academic centres. To date the total cost of the programme has been well in excess of [redacted].

HCA worked with these leading clinicians to define what is required to produce the highest quality cancer care. This "blueprint" was then translated into reality through a wide-reaching implementation effort. As a result, HCA operates a world-class cancer network that delivers breast cancer care which is demonstrably superior to any other provider in the UK. HCA's superior patient outcomes are displayed in Figure 4.

Benchmarking HCA outcomes against those of other UK private providers has proven difficult, due to the lack of publically available data. However, since these providers have not made comparable investments in care infrastructure, HCA strongly believes its quality is the highest in the UK.

Figure 4: HCA breast cancer outcomes[5]



[5] Please refer to the final section of this report for information regarding data sources, assumptions and calculations made throughout

6.2. HCA's breast cancer treatment

HCA's Network of Excellence programme has delivered truly world-class breast cancer care. Over 10 "UK firsts" have been integrated into a unique breast cancer treatment pathway, unrivalled anywhere in Europe. Even HCA's US operations, with ~160 hospitals and revenues of [redacted], have worked to import and roll out many elements of the UK's Network of Excellence.

The excellent breast cancer patient pathway delivered by HCA is summarised in Figure 5 and Figure 6. Many of the services shown are spread across different facilities, and HCA's tightly integrated network enables it to combine these services into a seamless pathway. For example, HCA patients benefit from specialist activities such as the cutting-edge diagnostics at The Princess Grace Hospital combined with the world-class chemotherapy at Leaders in Oncology Care. No standalone hospital could deliver the full complement of specialist services required to achieve this level of excellence for its patients.

Figure 5: HCA's breast cancer pathway

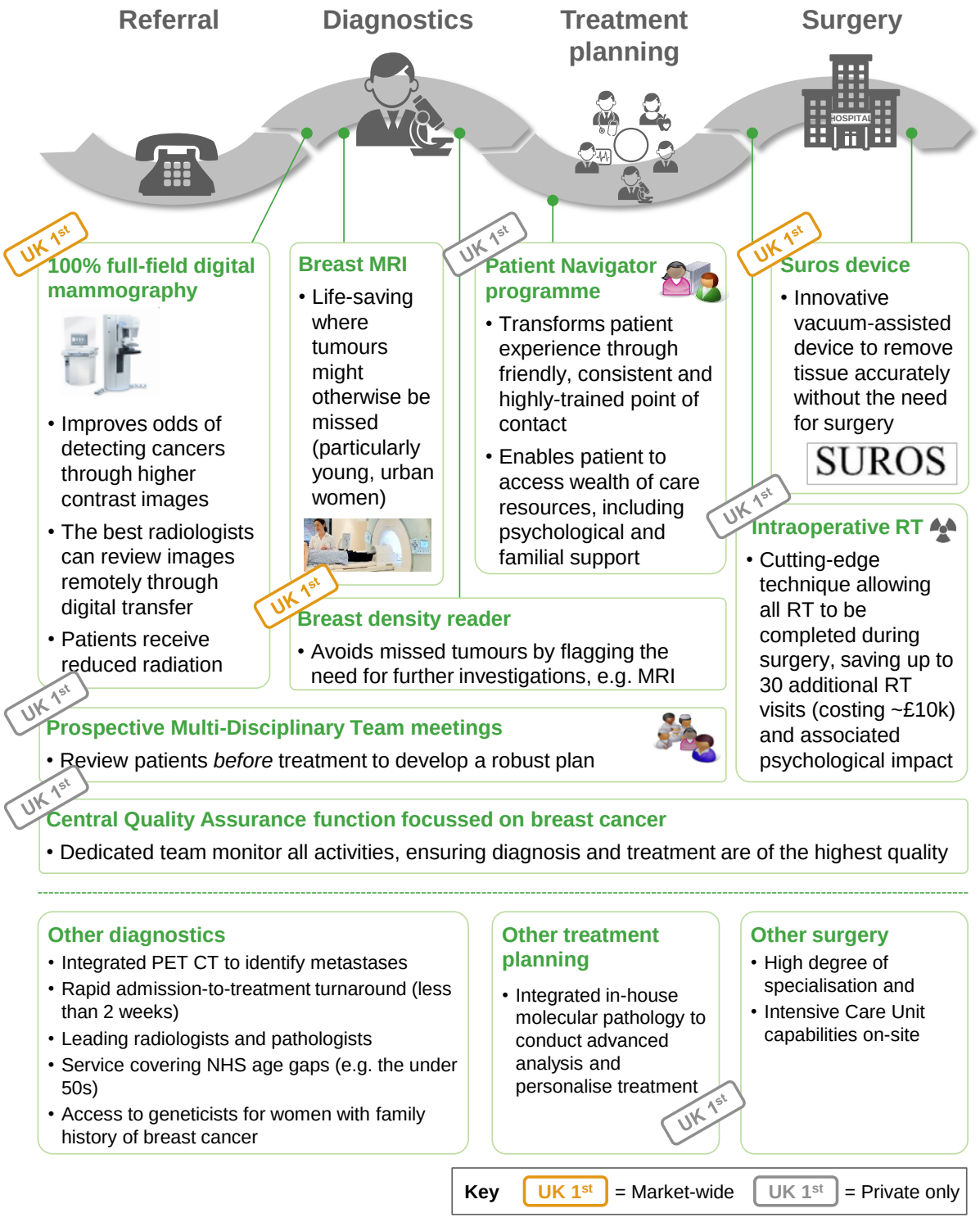
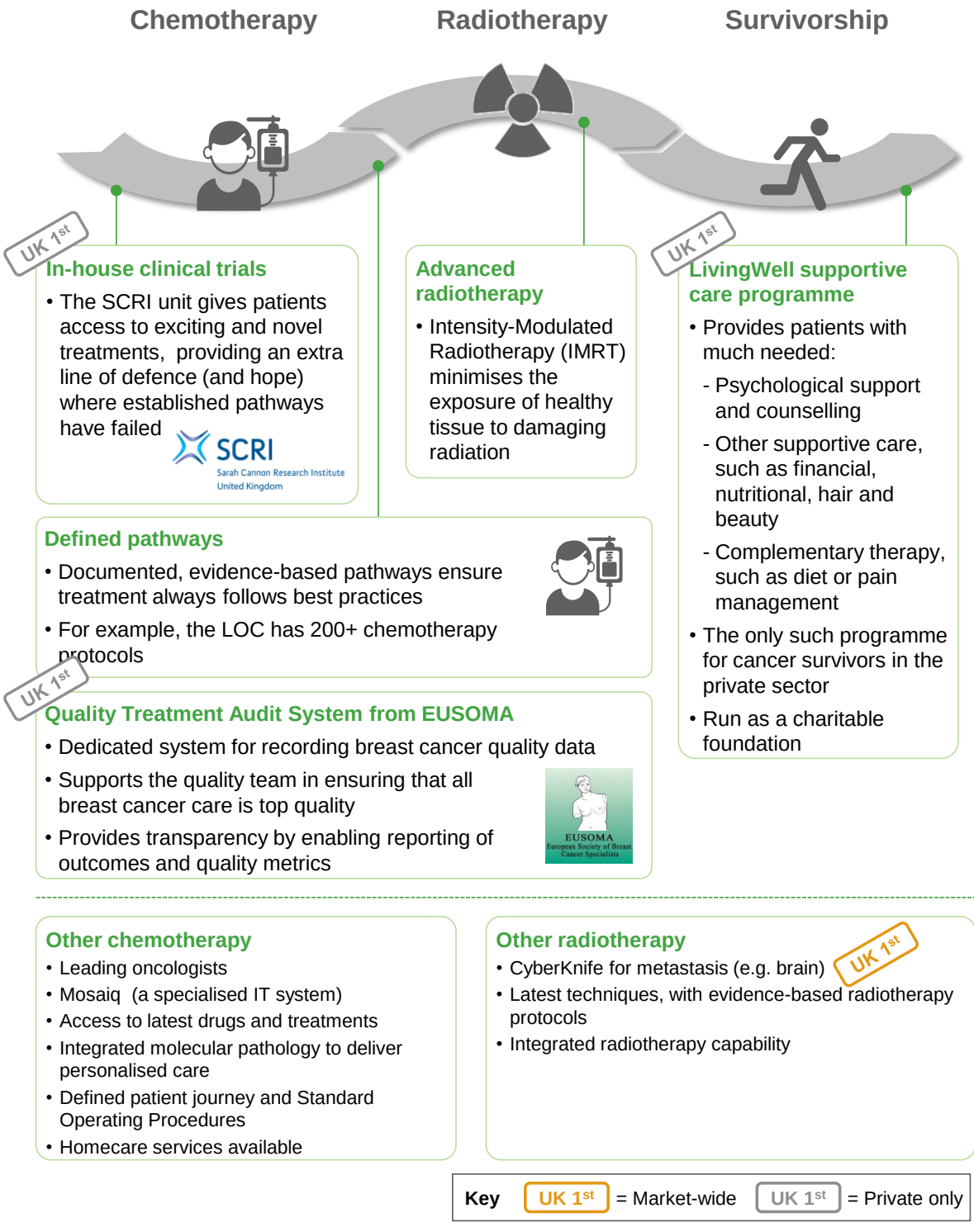


Figure 6: HCA's breast cancer pathway (continued)



6.3. Competitor comparison

The investment HCA has made in its breast cancer network is unmatched. Figure 7 shows 9 of the key elements of HCA's world-class breast cancer care. These ensure that cancers are not missed, robust decisions are made, care is co-ordinated, and patients feel supported and have access to the latest treatments.

HCA faces significant competition in cancer care. However, HCA stands out from its competitors in terms of its commitment to quality innovation, superior outcomes and depth of clinical resource. No other UK provider has made a comparable commitment, and many are missing the key elements required to deliver high-quality breast cancer care to all patients across their networks. With continued investment, HCA's quality will only improve.

Figure 7: HCA – Comparison with other providers[6]

[6] Scores are based upon publically available information and interviews with HCA clinicians, therefore accuracy may vary according to information available at the time

[7] Brachytherapy available

6.4. [redacted][8]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[8] [redacted]

[redacted]

[redacted]

6.5. What poor quality means for a patient[9]

Getting breast cancer care wrong has devastating consequences for patients and those around them. Poor quality care can have life-long impacts and even result in premature death. Below are three examples of poor-quality care and its impacts:

- Under-trained radiographers using low-quality equipment can produce breast images which are unclear. This could result in a missed cancer, leading to late diagnosis, additional disease progression and a lower survival prospect

- Treatment is not planned by a robust multi-disciplinary team, and other treatments are not considered leading to selection of a more aggressive surgical treatment than is necessary. This results in a woman's whole breast being removed rather than a smaller amount of tissue

- Overworked or under-trained nurses and weak patient education during chemotherapy means that a patient's fever symptoms are missed. This results in neutropenic sepsis (a low white blood cell count plus infection), requiring emergency medical attention to keep the patient alive

Having cancer is hard enough, without the trauma of mistreatment and poor outcomes. The following section details a real-life example of a breast cancer patient who was the victim of low-quality care at another private provider in London (summarised in Figure 8). This unfortunate patient was poorly diagnosed and forced to endure unnecessary toxic chemotherapy twice, facing permanent issues and losing valuable months of life. HCA has built a pathway which prevents such tragedies. In this example the patient was transferred to HCA, where these errors were corrected (although a lot of damage had already been done). HCA strongly believes that this patient, and patients like her, would avoid these disastrous experiences if treated by a high-quality provider throughout their treatment.

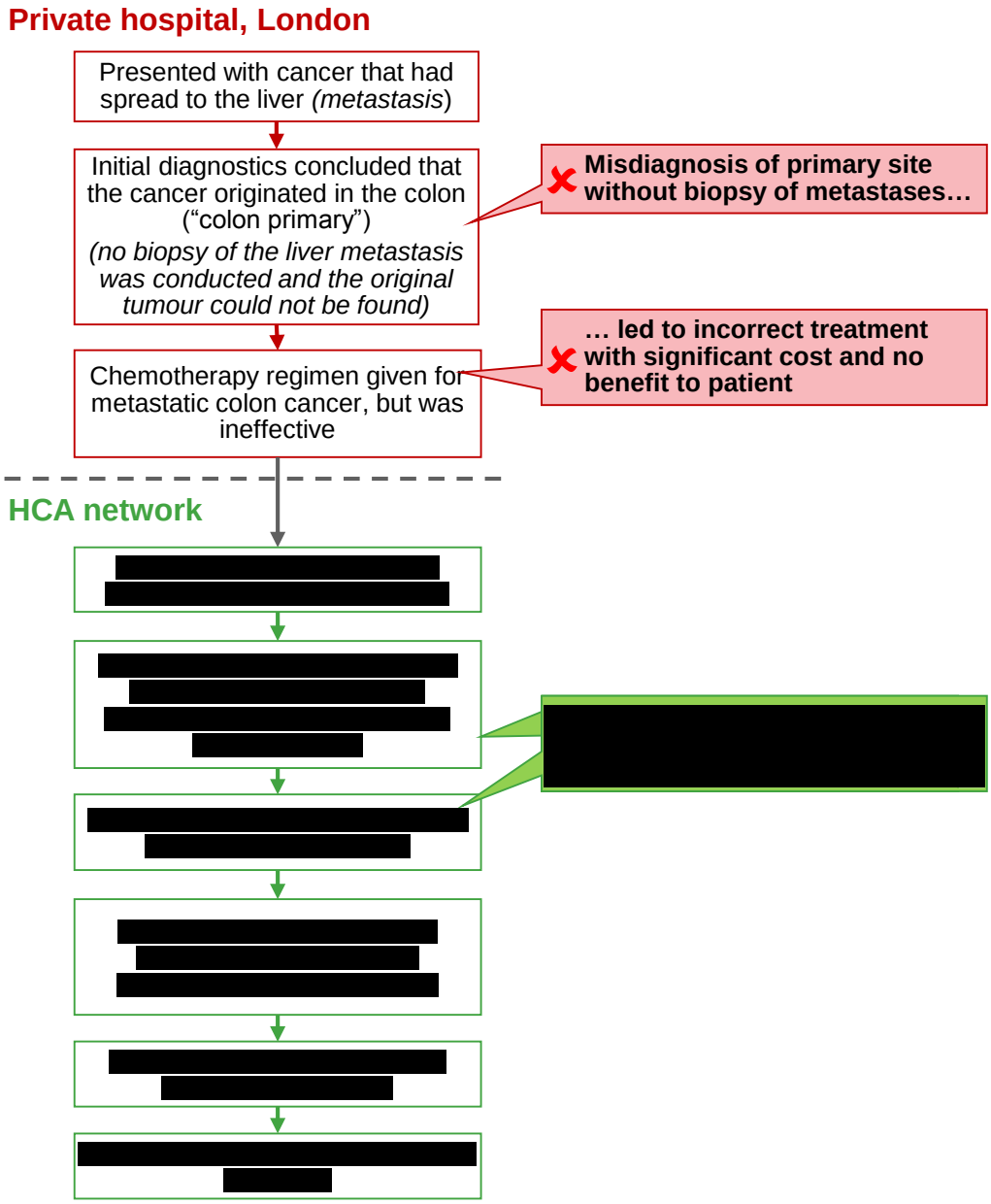
The patient's ordeal began when she visited a non-HCA private hospital in London. She had suspected cancer which had spread to her liver. In this situation, a thorough diagnostic process should be completed to establish where the cancer originated and where it has spread to. The origination point ("primary") is a vital determinant of how the cancer should be treated, and likewise the spread of the cancer around the body (called "metastases") and its locations inform what treatments are worthwhile.

Due to poor diagnostics and pathology, and potentially the lack of a multi-disciplinary assessment, the patient's cancer was misdiagnosed as a "colon primary". This diagnosis was made without biopsy of the metastasis and despite the fact that the primary tumour could not be found.

[9] This section contains a representative patient story: this is inspired by a past patient, but with changes made to protect confidentiality.

To treat her “colon” cancer the patient received expensive, demanding chemotherapy. This type of treatment is highly toxic, and the side-effects create significant physical and emotional strain. These can include constant nausea, low energy, hair loss, and many more. The patient was put through this unpleasant chemotherapy needlessly. Not only was the treatment ineffective (as it was intended for the wrong type of cancer), but the patient’s disease was progressing in the meantime.

Figure 8: Patient case study – Poor quality breast cancer treatment



When the chemotherapy had no effect, the patient was referred to an HCA Hospital for a second opinion.

The HCA team conducted a thorough diagnostic work-up, discovering that the patient actually had a “breast primary”. Following review by HCA’s multi-disciplinary team, a new treatment plan was developed incorporating the appropriate chemotherapy, plus radiotherapy to treat the patient’s metastases.

Following this tragic experience at a low-quality provider, the patient felt completely let down by those she trusted to treat her. However, once within the HCA network she was given the correct treatment and ongoing support. HCA is proud to say that the patient’s life expectancy increased after the initial diagnosis, largely due to the high-quality treatment provided by HCA.

If this patient had presented to HCA initially, the story could have been very different. She would have received robust, advanced diagnostics and a full multi-disciplinary assessment as standard. The result would have been longer survival and far less trauma, at a lower cost.

6.6. Risks of divestment

HCA disputes the benefits to consumers which the Competition Commission expects to gain through additional competition via a divestment remedy. In addition, HCA believes the divestment remedy would have significant negative impacts on patients in London, with the impacts on cancer patients highlighted below.

[redacted] will either enter a much weaker breast cancer treatment network or become a standalone operator. [redacted] will no longer benefit from HCA's unmatched network infrastructure. Examples of likely negative impacts for patients treated for breast cancer at [redacted] are outlined below:

- [redacted] will no longer be monitored by the central specialised HCA quality team. At best a less comprehensive function will be put in place, at worst there will be little quality monitoring outside the standard hospital-based quality function. This will certainly result in a decay of the high quality developed under HCA's ownership. The results of this decay will vary from higher technical mammogram repeat rates, resulting in additional cost and patient inconvenience, to larger errors which could impact patient health and clinical outcomes (e.g. survival)
- Patients at [redacted] will no longer benefit from integrated, coordinated access to the full range of technology available across the HCA network. Depending upon [redacted] assets and the new owner's local facilities (if networked), patients may no longer be able to access key technology. For example, breast MRI to aid accurate diagnosis for dense breasted women may no longer be easily accessible. This could result in the hospital 'missing' breast cancers which then develop into much more serious cancers by the time they are diagnosed
- [redacted] access to experienced clinicians and robust training processes will deteriorate. Best practices, such as the use of Evidence Based Medicine, will be much harder to implement consistently, leading to a poorer standard of treatment decisions and missed opportunities for patients

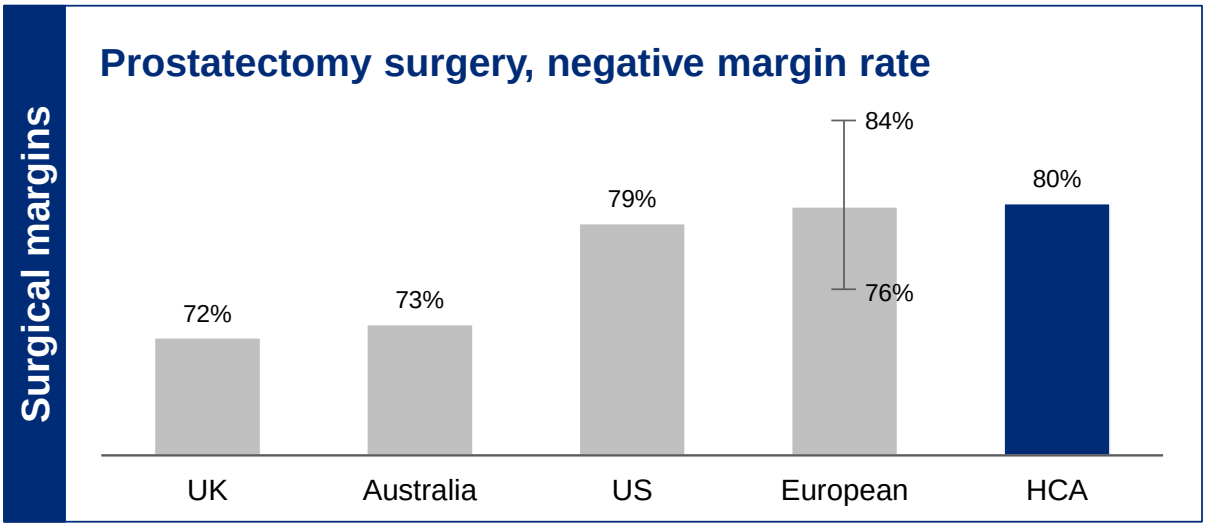
Within the HCA network, the ability to spread costs across multiple hospitals to invest in quality will be reduced by any divestments. This will reduce HCA's ability to lead on quality and innovation across the UK. Over time, this will result in a slower rate of improvement and innovation within the HCA network, which drives the wider UK market. Technologies such as automated ultrasound and Tomosynthesis (3D Mammography) for accurate diagnostics, Intra-Operative radiotherapy (IORT) and new breast cancer pharmaceuticals will proliferate more slowly. This will certainly reduce UK breast cancer patients' prospects of future world class outcomes.

7. Prostate cancer case study

7.1. HCA's superior prostate cancer outcomes

Over the last 10 years, HCA has invested heavily to create exceptional outcomes and a world-class experience for its prostate cancer patients. As in breast cancer care, HCA has worked with a group of the UK's most prominent clinicians to define a prostate cancer 'Network of Excellence' across a broad sweep of its hospital, outpatient and laboratory facilities. Significant investment has supported construction of this network, allowing HCA to deliver prostate cancer care that it believes is superior to any other private provider in the UK. As an illustration, HCA's superior prostate surgery outcomes are shown in Figure 9.

Figure 9: HCA prostate cancer outcomes[10]



Achieving 'negative margins' is a key aim for many types of cancer surgery, including prostate cancer surgery. When removing cancer tissue, the surgeon aims to also remove a margin of normal tissue around the cancer. Following surgery, a negative or "clear" margin means that this layer of normal tissue is unbroken, and therefore no cancer cells have been left behind.

Negative margin rates are a key indicator of quality in cancer surgery. Positive surgical margins can increase the risk of progression or recurrence, and therefore reduce a patient's chance of recovery and associated life expectancy. Because of this, a patient with positive surgical margins may need to undergo further treatment.

HCA's high negative margin rate shown in Figure 9 demonstrates high quality and means that its patients can feel confident they will benefit from top-class care and avoid the adverse outcomes associated with positive surgical margins.

[10] Please refer to the final section of this report for information regarding data sources, assumptions and calculations made throughout

7.2. Prostate cancer care at HCA

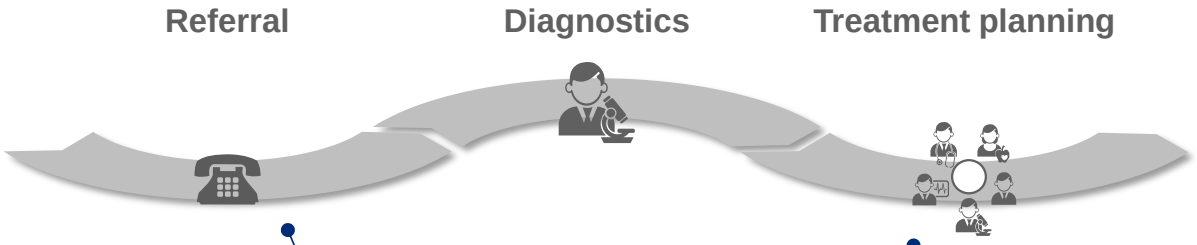
Prostate cancer is the most common cancer found in men in the UK, with around 41,000 new diagnoses each year (making up 25% of all male cancer diagnoses). Around 13% of men in the UK will be diagnosed with the disease at some point in their lives[11], and the UK average 5-year survival rate following diagnosis is 81%[11].

HCA's prostate cancer 'Network of excellence' is equipped to meet all the needs of prostate cancer patients. This begins with top-quality screening and diagnostics, provided by HCA's renowned clinicians and experienced teams using the latest techniques. Following diagnosis, HCA patients benefit from the full breadth of options. These include 'active monitoring' or surveillance programmes, to monitor disease progression where immediate treatment is not considered necessary. Prostate cancer usually develops slowly, and so it is possible to harbour the disease for many years before a patient's life is at risk. Therefore many prostate cancer patients can avoid invasive treatment and lead full lives, provided that their condition is actively monitored. If treatment is necessary, HCA is fully equipped to help each patient select the most appropriate options for them.

HCA's excellent prostate cancer capabilities are summarised in Figure 10. HCA's tightly integrated network enables these services to be combined into a seamless pathway for each individual patient.

[11] Cancer Research UK, 2010

Figure 10: HCA's prostate cancer pathway



Individualised screening and surveillance

- Incorporates all key screening tests (DRE, PSA testing, etc.) to monitor prostate health over the long-term

3T MRI scanner

- First provider to offer service
- The most powerful magnet available for the most accurate picture possible
- Can reduce the number of "unnecessary" biopsies and increase biopsy accuracy

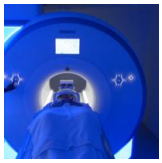


Image-guided biopsy

- Maximises accuracy of the biopsy and ensures samples are taken from the suspicious area

Leading radiologists and pathologists

- Highly specialised personnel with focused expertise in prostate cancer diagnostics

UK 1st

Prospective (not retrospective) multidisciplinary team meetings

- Guarantees a complete, robust discussion of each patient prior to treatment
- Ensures selected treatment is the most appropriate for each patient

Molecular Imaging Centre

- Incorporates Gamma cameras and PET CT
- The latest Choline contrast

UK 1st

- Supports accurate staging and diagnosis of metastases

Access to molecular pathology

- Provides advanced analysis and personalisation of treatment, through ownership of highest volume laboratory in the UK for specialist prostate pathology (Bostwick laboratory)

UK 1st

PET MRI imaging machine

- Cutting-edge equipment available to boost innovation in imaging activities

Active surveillance

- Highly developed systems for safe monitoring of disease
- Leading the private sector, e.g. with 3-monthly PSA programme, repeat MRI

Cross-site IT infrastructure

- Seamless transfer of information and images across sites (using MOSAIQ and Meditech systems)

Key UK 1st = Market-wide UK 1st = Private only

Surgery, radical and focal therapy

Robotic (keyhole) surgery (da Vinci)

- Latest techniques and technology
- Minimises tissue damage and expedites recovery

Rapid access

- No waiting, reduced anxiety and maximum convenience

Top-class surgeons

- The very best, with safe case loads ensuring skills remain honed and outcomes are optimised
- Sharing of expertise is integral to the culture

UK 1st

Robust pre-treatment counselling and information

- The most comprehensive patient information in the UK, including DVDs, leaflets, etc.
- Unique support: "360º care"

Specialised inpatient services

- Dedicated chemotherapy floors, doctors, nurses and pharmacists

Chemotherapy

UK 1st

Advanced radiotherapy

- Including the TrueBeam system delivering RapidArc radiotherapy
- Industry-leading CyberKnife system to deliver stereotactic radiotherapy

Calypso fiducial markers

- Guides radiotherapy to enhance accuracy

Latest focal therapy options (HIFU, PDT)

- Provide non-surgical treatment options

Specialist urological nurses

- Experienced with needs of prostate cancer patients
- Work full-time with the prostate cancer team

Experienced oncologists

- Patients benefit from expertise of world-class clinical and medical oncologists, based on-site

Survivorship

UK 1st

Trials via SCRUK

SCRI

- Access to trial treatments unavailable elsewhere, e.g. Abiraterone, Enzalutamide

Brachytherapy and High Dose Radiotherapy options

- Providing further treatment options where appropriate

Intensive care unit

- Available where required

Bespoke supportive care programmes

- Including penile rehabilitation, helping with continence and sexual function post-treatment (routine, not ad-hoc)
- Access to sexual function therapist

24-hr emergency support

- Phone line to nurse specialist with consultant access

LivingWell programme

- Unique, non-profit patient support and end-of-life care

Seamless access to other specialities where required

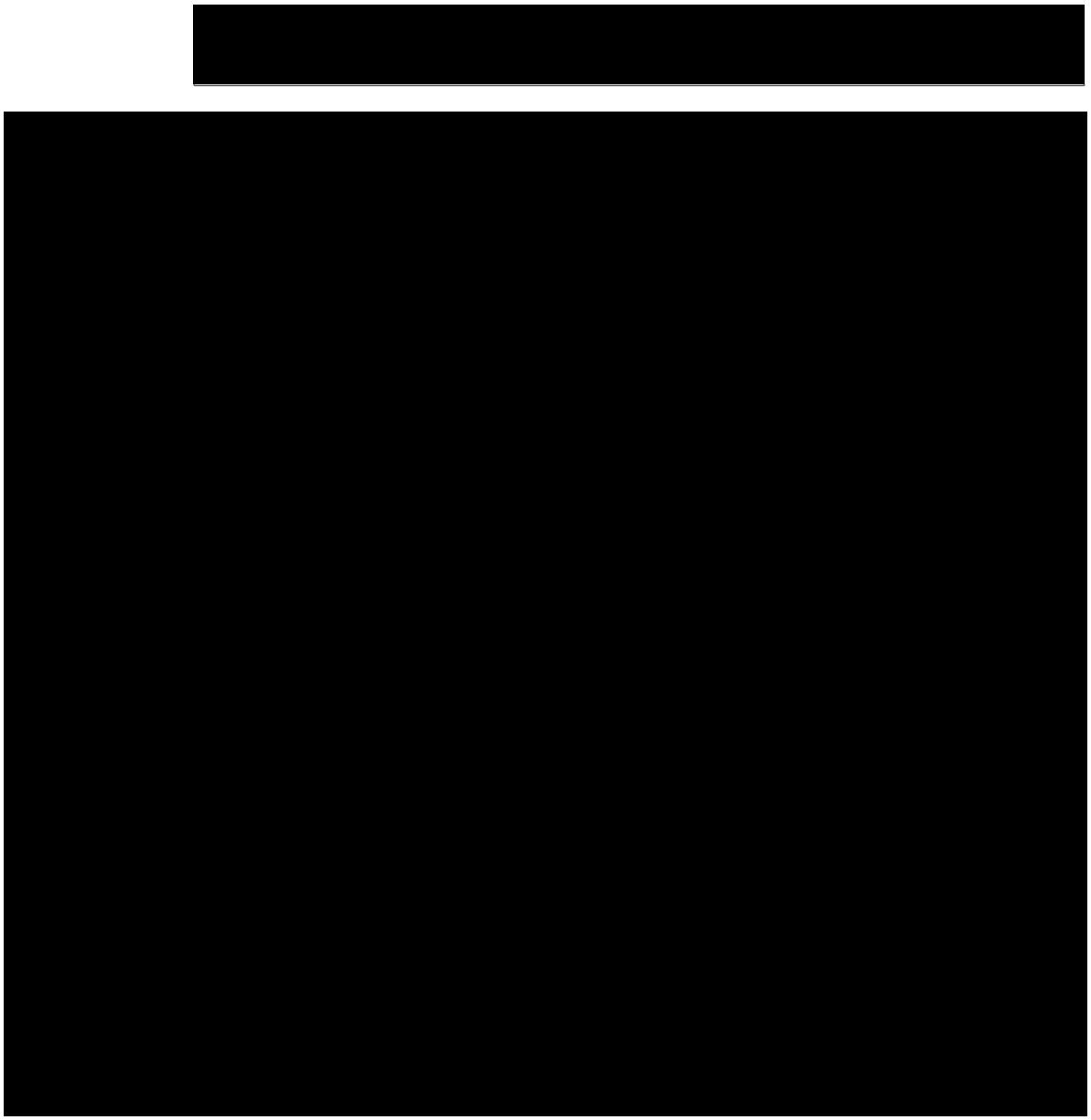
- Surgeons for treatment of metastasis (lymph nodes, bone) and to relieve spinal cord compression
- Advanced radiotherapy to treat metastasis

Key UK 1st = Market-wide UK 1st = Private only

7.3. Competitor comparison

HCA's commitment to excellence in prostate cancer care is unmatched in the private sector. Figure 11 illustrates how HCA is differentiated from competitors and delivers the best possible patient outcomes and experience.

Figure 11: HCA – Comparison with competitors[12]



[12] Scores are based upon publically available information and interviews with HCA clinicians, therefore accuracy may vary according to information available at the time

Spotlight on innovation: 3T MRI scanning

[redacted]

7.4. [redacted][13]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

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13 [redacted]

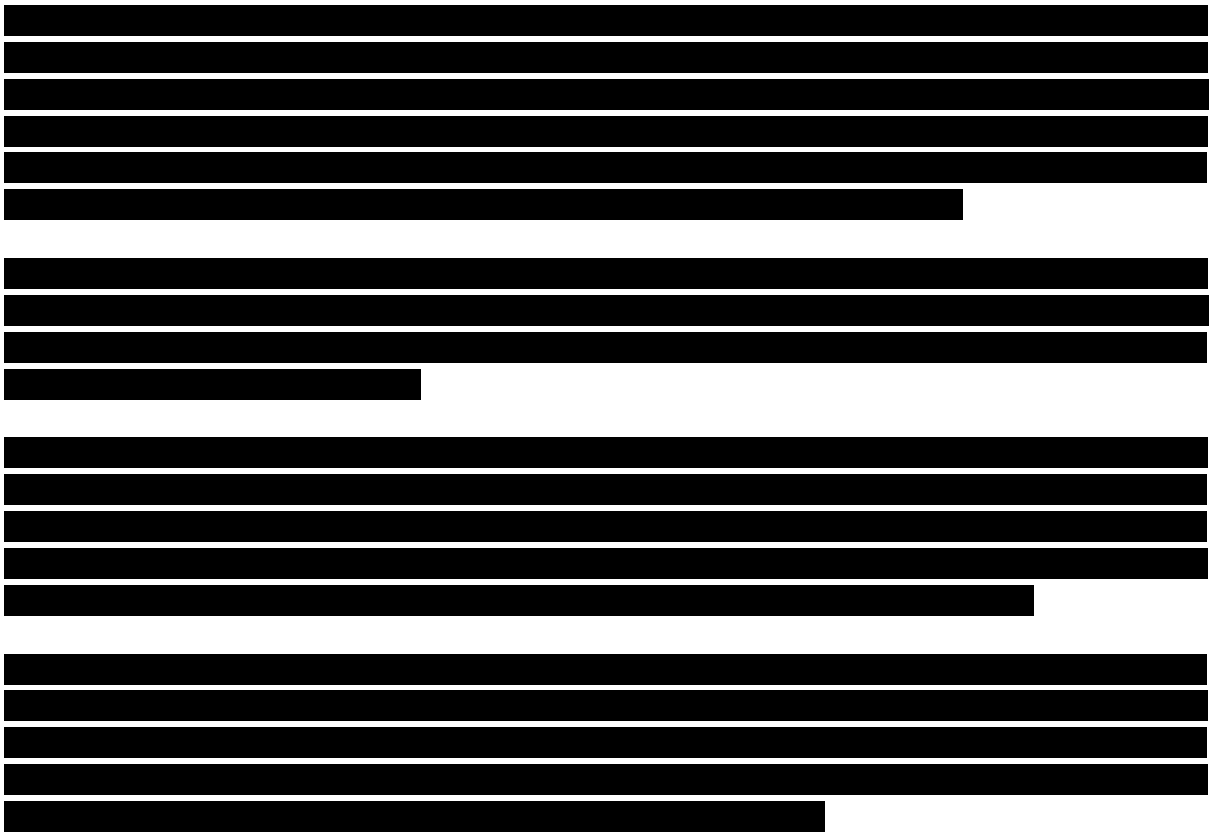
[redacted]

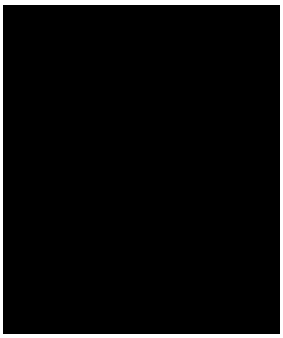
Spotlight on innovation: Multi-disciplinary Team Meetings

Taking a multi-disciplinary approach is an essential part of delivering high-quality cancer care. Multi-Disciplinary Teams (MDTs) are central to this approach. These are groups of doctors and other healthcare professionals who cooperate to treat patients with a particular cancer type. This cooperation is centred on Multi-Disciplinary Meetings (MDMs) where the team meets to discuss each patient's needs, develop and agree a treatment plan, assess patient progress and audit the team's performance. These processes ensure the expertise from all required specialities is coordinated to treat the patient as effectively as possible, and that treatment decisions are robust and carefully considered.

MDTs and MDMs are widely recognised as best-practice and deliver major patient benefits. Research has shown that MDT-managed patients are more likely to receive accurate diagnosis and staging, receive better coordination and continuity of care through all stages of the cancer, be offered appropriate and consistent information and have their psychological and social needs considered.

HCA worked hard to become the first private provider in the UK to deliver effective prospective cancer multi-disciplinary meetings and treatment planning. The HCA Prostate Cancer MDT at The Prostate Centre consists of representatives from urology, oncology, radiology, pathology and nursing, plus key supportive specialities. These individuals are drawn from sites across HCA's wide network. The full team meets in-person every week to discuss patients and agree treatment plans before treatment begins. This is unique in the private sector and is enabled by the HCA network which supports central investment in coordinating personnel, infrastructure and facilities such as high-quality teleconferencing and image-sharing software. Full speciality representation is also enabled due to the breadth of specialities available within the network. Thanks to this high level of commitment, HCA cancer patients benefit from a best-practice multi-disciplinary approach.





[redacted]

7.5. HCA's contribution to healthcare research

Appreciating that research is both a driver of innovation and a foundation for delivering excellent care; HCA has long worked to incorporate research into its strategy and build strong links with the research community. Consequently HCA has an active programme of activities and leads the UK private provider market in healthcare research.

The benefits of HCA's research activities are wide-ranging and go well beyond the pure advancement of healthcare. HCA patients benefit from the most innovative treatments, which would not be accessible outside research programmes which are unique to HCA in the UK. Patients are also treated by top doctors who would not operate a clinical practice if they were not able to conduct research in parallel. Without HCA, both research programmes and top doctors may transfer to other countries, making them inaccessible to UK patients and reducing the international competitiveness of the UK.

Benefits also exist for the NHS, where HCA's activities contribute additional funding and resources. For example, in order to support its own research and to access high quality personnel for positions such as RMOs (Resident Medical Officers), HCA funds numerous research fellows at NHS teaching hospitals. Positions are funded in urology as well as many other specialties such as cardiology, hepatology and oncology. These research fellows typically spend 30-40% of their time with HCA, and the rest in the NHS. Through links with universities, HCA also funds research positions such as PhD students.

The Sarah Cannon Research Institute (SCRI) is a powerful example of how HCA's research activities are generating significant benefits. SCRI is a global research organisation focused on conducting clinical trials in oncology and cardiology. Through SCRI's UK clinical trials unit (SCRUK), private and NHS patients are able to enrol in clinical trials which are not accessible anywhere else. As one of the largest clinical research programmes in the world, SCRI is often selected to run trials which would not otherwise come to the UK. The AZ 5363 phase 1B trial is an example of a trial for prostate cancer patients, SCRI was selected to support this trial and SCRUK was the highest recruiting centre in the world. SCRUK was also 1 of 2 EU centres selected for the clinical trial of Enzalutamide, a new hormone therapy for prostate cancer patients.

In addition to clinical trials, HCA's strong research links enable patients to access drugs through "expanded access" programmes. These programmes are for drugs which have completed trials and proven effective, but are yet to receive a license. In this situation some drugs are offered to patients through an expanded access programme. These are very attractive as the drugs will benefit patients, and are also provided free of charge. In these situations, HCA works rapidly to complete the paperwork to enrol patients onto expanded access programmes.

There is no question that HCA's research activities generate quality benefits. A divestment would harm HCA's ability to invest in furthering its research strategy and thereby have a serious impact on the benefits delivered.

7.6. Risks of divestment

Enabled by its network, HCA believes it operates the UK's highest quality prostate cancer services. HCA believes a divestment remedy would have significant negative impacts on prostate cancer patients in London and further afield.

[redacted] would be removed from the HCA network and no longer have access to its shared infrastructure and services. The likely negative impacts of this include:

- Patients at [redacted] will no longer have seamless access to the cutting-edge technology across the HCA network, for example 3T MRI for diagnosis, or the da Vinci robot for surgical treatment. These two examples alone could result in lower quality diagnoses and longer recovery times from surgery.
- Patients at [redacted] will have reduced access to the expertise of HCA's renowned clinicians, either through direct consultation or via HCA's prospective multi-disciplinary team meetings. This will reduce the quality of treatment decisions and may lead to sub-optimal treatment of the patient.

For the HCA network, a reduction in patient activity levels would mean HCA has a reduced ability to invest in prostate cancer care delivery. This would limit HCA's ability to maintain highly specialised centres, provide specialised wards or invest in developing new techniques such as PET scanning with Choline contrast. Consultants' ability to refer patients smoothly across the network would also diminish, ultimately leading to a more convoluted and less integrated patient pathway.

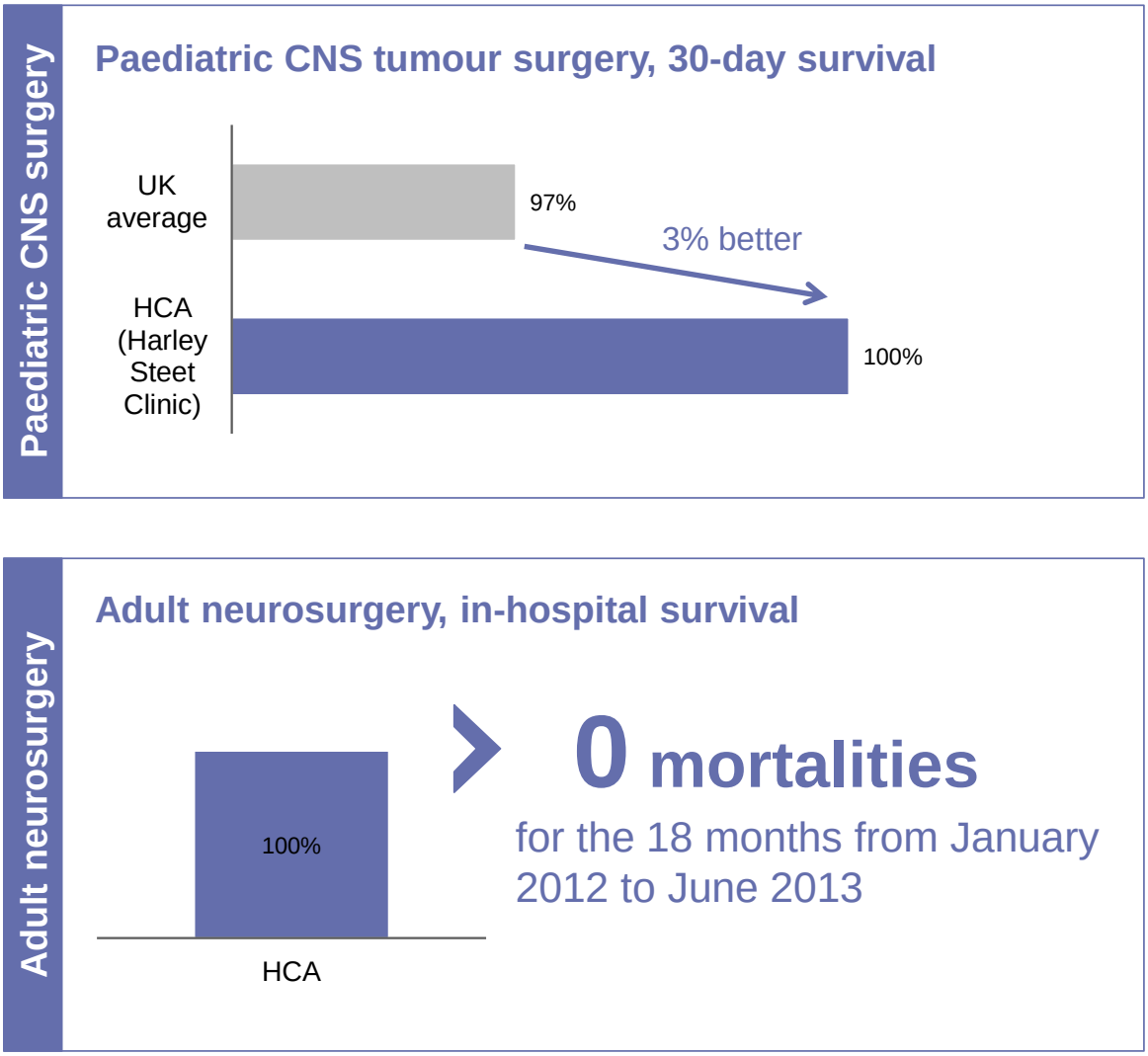
Overall, the quality of care available to private prostate cancer patients in the UK would be certain to drop as a result of any divestment, which would have a significant negative impact on outcomes for patients.

8. Neurosurgery care case study

8.1. HCA's superior neurosurgery outcomes

HCA leads the private sector in complex neurosurgery. HCA was the first private hospital group in the UK to establish a comprehensive, self-contained neurosurgical unit, and now performs specialist neurosurgical procedures at three of its hospitals. This surgery is supported by state-of-the-art diagnostics, treatment and rehabilitation facilities across the entire network. HCA's commitment to excellence means its neurosurgery services are of the highest quality, with patients benefiting from superior outcomes. Some of these outcomes are summarised in Figure 12.

Figure 12: HCA neurosurgery outcomes[14]



[14] Please refer to the final section of this report for information regarding data sources, assumptions and calculations made throughout

8.2. Neurosurgery at HCA

Neurosurgery refers to surgery performed on the Central and Peripheral Nervous systems (CNS and PNS). The majority of procedures focus on the spine, to treat conditions such as back pain or sciatica, and the brain, to treat brain tumours and vascular conditions such as cerebral aneurysms. The CNS and PNS are vital and easily damaged systems, therefore surgical interventions are high-risk.

As well as being a complex specialty, neurosurgery is evolving rapidly. To minimise "collateral" damage to vital adjacent structures, surgical techniques are becoming ever less invasive. Recent developments include endoscope-assisted surgery, where a tiny light source and camera are passed through a natural opening or small incision, and specially designed instruments are used to minimise unnecessary tissue damage. A range of innovative microscopic techniques are also being adopted.

Radiation is playing an increasingly large role, not only during diagnosis (using MRI, CT and other scans to identify brain and spinal conditions) but also in treatment. Image-guided neurosurgery is now common: in a process called neuronavigation, detailed scans can be overlaid onto live surgical images to guide the surgeon to a small target (e.g. a brain tumour). Furthermore, in place of traditional surgical procedures, high-power targeted radiation is being used to destroy tumours and other malformations in the brain and spine. This non-invasive surgical technique is called stereotactic radiosurgery, often performed using Gamma Knife or CyberKnife branded equipment.

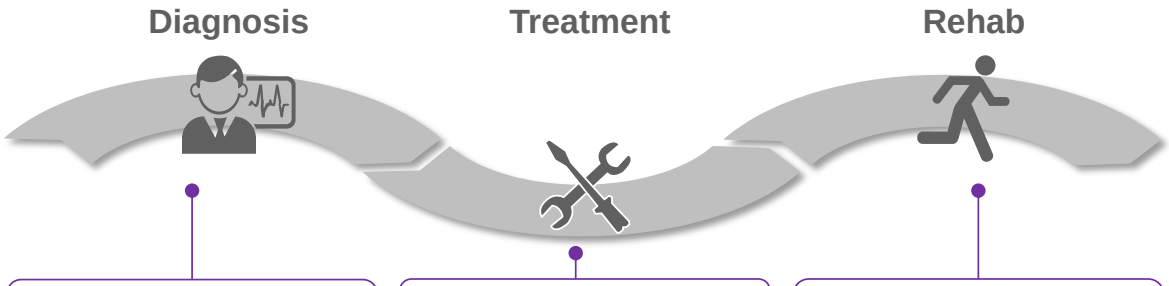
Delivering a top-class neurosurgery service requires significant investment in the latest equipment, as well as alignment of highly skilled teams with the right expertise to manage patients through accurate diagnosis, safe surgery and thorough rehabilitation.

HCA established the UK private sector's first comprehensive, self-contained neurosurgical unit, and is now widely regarded as leading the UK private healthcare market in neurosurgery, with centres of excellence at The Wellington Hospital, The London Bridge Hospital and The Harley Street Clinic. In addition, HCA offers neurological services across its network, including state-of-the-art neurological rehabilitation centres at The Wellington Hospital (adult) and The Portland Hospital (paediatric).

HCA has attracted highly skilled teams from a wide range of disciplines, including top neurosurgeons from acclaimed teaching hospitals. Guided by these renowned clinicians, HCA has made significant investments in the equipment and infrastructure required to deliver outstanding services.

Some of the key elements of HCA's service are described in Figure 13. Many of the elements shown are spread across different facilities, and HCA's tightly integrated network enables it to combine these services to deliver a seamless treatment pathway.

Figure 13: HCA's neurosurgery pathway



MRI scanners

- Functional scans map brain activity
- Children's general anaesthetic services available on multiple days

CT scanners

- Latest 64-slice CT scanner
- Dedicated paediatric scanners
- 24hr availability

Other imaging modalities

- More accurate diagnoses using up-to-date PET/CT
- Full range of X-ray and ultrasound equipment

Timely and appropriate diagnostic imaging

- Experienced teams select the right scans
- No waiting lists
- Expedited adult and paediatric neuroradiology

UK 1st

Prospective neuro-oncology MDM

- Ensures robust decisions and appropriate treatment plans

Stereotactic radiosurgery

- Rapid access to Gamma Knife and the UK's first CyberKnife

UK 1st

Minimally invasive surgery

UK 1st

- Endoscopic discectomy performed as day-cases

UK 1st

- Accurate resection of brain tumours using Gliolan fluorescence
- Microscopic and endoscopic brain surgery

Neuronavigation

- Safer image-guided surgery

Dedicated operating rooms

- Specialised equipment
- Senior neurosurgical trainees from NHS teaching hospitals provide cover
- Staffed by experienced specialist nurses

Interventional radiology

- Replacing open surgery with image-guided treatment through blood vessels, e.g. coil placement for brain aneurysms
- Lowers patient risk, pain and recovery time

Neurological rehab centre

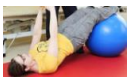
- State-of-the-art, purpose-built, 46-bed centre
- Run by a multi-disciplinary team of experienced consultants, physiotherapists, occupational therapists, speech and language therapists, neuropsychologists and dieticians
- Contains three gyms and a hydrotherapy pool, ensuring patients can access facilities when needed
- Provides psychological and emotional support in adapting to disability

Seamless transfer to ICU

- In-house ICU available for those who require it
- Experienced in handling complex neurological cases

UK 1st

Paediatric acute neuro-rehabilitation centre



- Only facility of its kind in the UK, with on-site intensive care and diagnostic technologies
- Newly refurbished, purpose-built centre

Other features

- Intraoperative MRI (currently being built)
- Biological therapies
- Treatment for Spasticity
- Vaccines for brain tumours in development (DCVax)

Key UK 1st = Market-wide UK 1st = Private only

8.3. Delivering excellence through networks

Complex neurosurgery is inherently a low-volume specialism with a fundamental tension: how to provide highly complex, life-saving care for relatively few patients, while justifying the huge investments in infrastructure and expertise to make this possible.

As in other complex specialties, to deliver the highest quality of care in neurosurgery providers need a network that allows them to: a) appropriately concentrate volume on centres of excellence, and b) draw upon a wide range of expertise. Some of the features of excellent care enabled by HCA's network are outlined below.

1. Appropriate senior medical cover

A major area of concern is medical cover: what happens when a patient needs their specialist, but he or she is not available? For example, the patient may encounter complications whilst recovering from an operation, or perhaps require an urgent consultation.

For patients of isolated neurosurgical centres, this situation often leads to sub-optimal care. The doctor covering the ward may be a RMO (resident medical officer) with general expertise and little training in specialist neurological issues. Furthermore, a consultant neurosurgeon may not be available 24/7 because the facility does not have the activity levels to support this rota.

As a network, HCA can accommodate a large group of neurosurgeons. For example, The London Neurosurgery Partnership has 11 respected neurosurgeons that operate from The Harley Street Clinic, meaning appropriate cover can be provided by a rota of senior consultants. In addition, HCA's model means that even if a patient's neurosurgeon is away on holiday, all the patient information is readily available to the covering consultant. For emergency care, HCA's wards are staffed by specialist neurosurgical nurses, and, instead of an RMO, cover is provided by a neurosurgical registrar.

Spotlight on innovation: Resection of brain tumours using Gliolan fluorescence

Gliolan is an innovative new drug designed to help neurosurgeons to more effectively identify and remove brain tumours while avoiding normal brain tissue. Prior to their operation, the patient takes the drug as an oral solution, so that it is fully absorbed by their cells. During the operation, the surgeon shines an ultraviolet light onto the areas of interest and brain tumour cells glow a different colour to normal cells. This makes it easier for the surgeon to identify and remove the brain tumour cells without damaging normal tissue.

Research suggests that Gliolan results in higher rates of complete tumour resection, lower rates of progression and longer survival following surgery, all significant benefits for brain tumour patients.

The drug was brought to the UK in a trial funded by Cancer Research UK. One of the trial centres is at King's College Hospital NHS Foundation Trust in London. Through HCA's close relationship with the King's team, brain resection using Gliolan has now been made available for HCA patients, who are currently the only private UK patients benefiting from this innovative treatment.

Spotlight on innovation: Endoscopic daycase discectomy

Discectomy is a surgical spinal decompression technique used to relieve pain caused by pressure in the spinal column. In this technique, sections of the intervertebral disc are removed to relieve pressure on the nerves in the patient's spine. Recent innovations mean that discectomies can be conducted less invasively. Using endoscopic techniques, a probe can be inserted into the patient's back through a tiny incision the size of a needle. Microsurgical instruments can then be used to conduct the procedure, without the need for the large incision associated with an 'open' approach.

Using an endoscopic approach for discectomy exhibits the same benefits as other minimally invasive techniques: a smaller incision reduces blood loss, risk of infection and scarring. The equipment used is also highly accurate and sensitive, therefore tissue damage is minimised, reducing pain after surgery and maximising speed of recovery. Endoscopic discectomy can also be conducted as a daycase, avoiding an overnight stay for the patient.

This technique was also introduced to the UK by surgeons from King's College Hospital. Again, by working closely with the King's team, HCA was able to introduce this technique to benefit its patients. In fact the first surgeon to perform the technique in England now conducts the procedures for HCA patients. HCA remains the only private organisation conducting daycase endoscopic discectomy.

2. Large subspecialised teams

Neurosurgery is highly subspecialised. This means that, due to the complexity and diversity of neurological issues, top consultants have deep expertise in a narrow area of focus.

Isolated neurosurgical centres naturally have fewer neurosurgeons, and therefore less subspecialty coverage. For example, an isolated centre might have a brain surgeon, but not a neurovascular surgeon. This situation leads to clinicians operating outside of their subspecialism, either because they cannot or do not want to refer the patient to another specialist.

At HCA, the networked solution means that patients are always seen by a subspecialist in their condition. The close working relationship of HCA's neurosurgeons, built up over many years, means that they are able to seamlessly refer the patient to the most appropriate clinician. Operating outside of a clinicians subspecialism does not always lead to sub-standard care, however the HCA network guarantees subspecialised excellence for its patients.

3. Prospective multi-disciplinary teams (MDTs) and meetings (MDMs)

HCA is the only provider in the private sector to use an MDT to prospectively plan treatment for all of its neurosurgery patients. This is a large investment in time and resources, but HCA considers it to be absolutely critical to ensuring quality. Even in the case of out-of-hours emergency admissions, the meeting will be held promptly over the phone.

Supporting a functioning MDT requires concentration of patient volume, as well as representation from a wide variety of specialisms. For these reasons, isolated

Spotlight on innovation: The Wellington Acute Neurological Rehabilitation Unit

Many neurological conditions will require some form of rehabilitation, whether following surgery, an injury, a stroke or other trauma.

At The Wellington hospital, HCA has built the private sector's largest acute neurological rehabilitation unit. Spread over 3 floors, the unit contains 46 beds (soon to be 56) and is run by an experienced multi-disciplinary team, including consultants, physiotherapists, neuropsychologists, speech therapists and many more specialists.

The centre is internationally recognised for its excellence, and promotes a true "team approach" to care, which extends even after the patient has left the centre. The exceptional facilities include three gyms and a hydrotherapy pool, as well as spacious living areas to accommodate visiting friends and family.

The neurological rehabilitation centre gives patients the best possible care to maximise their functional abilities. Once this is achieved, the team helps the patient return to life at home, and will provide psychological support for patients that need to adapt to disability.

providers are not able to offer a meaningful MDT service, and treatment decisions can therefore be sub-optimal.

Within HCA's neurosurgery MDT, the full range of disciplines is represented, which HCA considers to be a requirement for excellence. HCA is able to draw on the breadth of expertise available across its entire network, including specialist areas such as paediatric neurosurgery and neuro-oncology, to make highly informed decisions that lead to better patient outcomes.

4. Innovations in treatment

By concentrating volume and allowing subspecialisation, HCA is able to drive innovation and invest in cutting-edge techniques in neurosurgery. These investments are made viable by HCA's networked MDT, which is able to recognise and refer every patient that could benefit from a particular innovation. Subspecialisation also ensures surgeons meet the safety requirements for using new technologies.

Using its network, HCA has been able to invest in a range of innovations including resection of brain tumours using Gliolan fluorescence, endoscopic daycase discectomy, and the Acute Neurological Rehabilitation at The Wellington Hospital.

Investments are guided by HCA's top class clinical personnel. For example, the neurological team at The Wellington Hospital (including clinicians and managers) meets every other month to discuss innovation. This meeting helps the unit to stay up-to-date and often results in the development of business cases for investment in new innovations.

8.4. [redacted][15]

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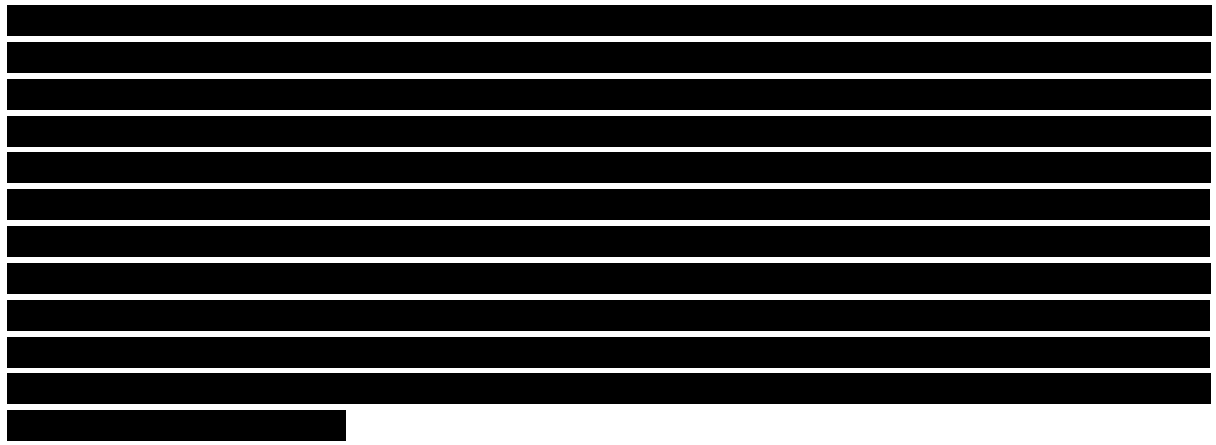

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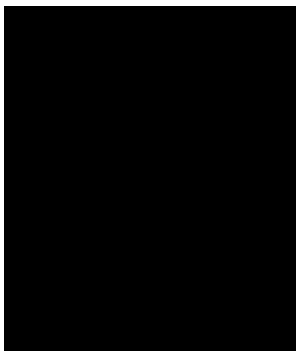

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[redacted]

8.5. Risks of divestment

HCA's neurosurgery services operate at the very highest quality level and boost the overall quality of neurosurgery services in the UK. For this reason, HCA believes that any divestment would have a significant negative impact on future patient outcomes and experiences. Furthermore, HCA believes that, due to the small number of comprehensive providers in London, a divestment would do little to increase competition in the London or UK markets.

HCA's two major neurosurgery centres at The Harley Street Clinic and The Wellington Hospital enable HCA to offer top-class neurosurgery to patients across the HCA network. If divested, the future of these units would be uncertain. The new owners are likely to be less familiar with operating complex neurosurgical units, and may be unwilling to back such a high-risk service. Even if they are willing to continue, their lack of expertise is likely to lead to a drop in quality: maintaining a high-quality neurosurgical service requires patient concentration, and with just one major hospital rather than a network, this will be challenging for the new owners.

The loss of a major neurosurgery unit will also weaken quality at HCA's remaining hospitals. Without seamless, in-network access to the unit, HCA patients' treatment will be less coordinated. Their treatment pathway may be disjointed and slower, creating quality and patient experience challenges. Some key HCA personnel may also move their practices to ensure they remain aligned with the neurosurgery unit, further weakening HCA's ability to meet patient's needs.

If a major neurosurgery unit is not divested, the impact on HCA will be smaller. However, broader quality will still suffer. [redacted] would be removed from the HCA network and no longer have seamless access to its shared infrastructure and services, particularly those of the neurosurgery units.

In either scenario, a reduction in patient concentration would mean HCA has a reduced ability to invest in neurosurgery delivery. This would limit HCA's ability to maintain highly specialised centres, provide specialised wards or invest in new equipment such as the Gamma Knife. Consultants' ability to refer patients smoothly across the network would also diminish, ultimately leading to a more convoluted and less integrated patient pathway. Overall, the quality of service available to private neurosurgical patients is likely to drop as a result of any divestment.

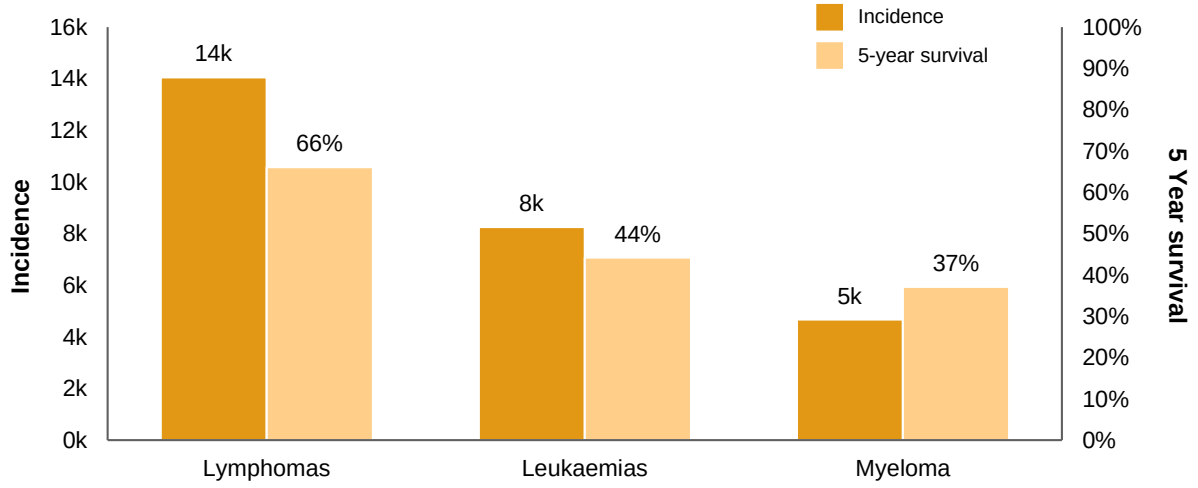
9. Blood cancer care case study

9.1. Introduction: Blood cancers

Leukaemia, Lymphoma and Myeloma are types of cancer often referred to as blood or haematological cancers. Unlike 'solid' cancers, such as breast and prostate cancers, this group of cancers affect the blood, bone marrow or lymphatic systems. They arise due to faults during the development of white blood cells: these flawed white blood cells can then multiply out of control and overwhelm a patient's system.

There are almost 27,000 incidences of blood cancers per year in the UK, and just 50% of patients will survive for 5 years following diagnosis. Blood cancers are some of the most common and deadly cancers: Figure 14 shows the incidence and survival rates for the three most common blood cancers.

Figure 14: Blood cancers – UK incidence and survival[16]



Blood cancers strike at some of the most vulnerable individuals in society. They are the most common type of cancer in children, teenagers and young adults (ages 0 to 24), with over 1,000 new cases diagnosed in these groups combined each year, and over 200 deaths.

Effective treatment is critical. In addition to the various treatments also used for 'solid' cancers, patients suffering from serious blood cancers can require bone marrow or stem cell transplants. This procedure is unlike other cancer treatments. First, high-dose chemotherapy and total-body radiotherapy are used to wipe out the cells producing faulty white blood cells. The patient is then given a transplant of healthy cells to replace those that were wiped out. This is a very high-risk procedure: during the transplant the patient's immune system is completely compromised, meaning

[16] Please refer to the final section of this report for information regarding data sources, assumptions and calculations made throughout

they could die from even the most minor infection. To minimise the risk of infection, transplant patients are kept in isolation for a number of weeks during treatment.

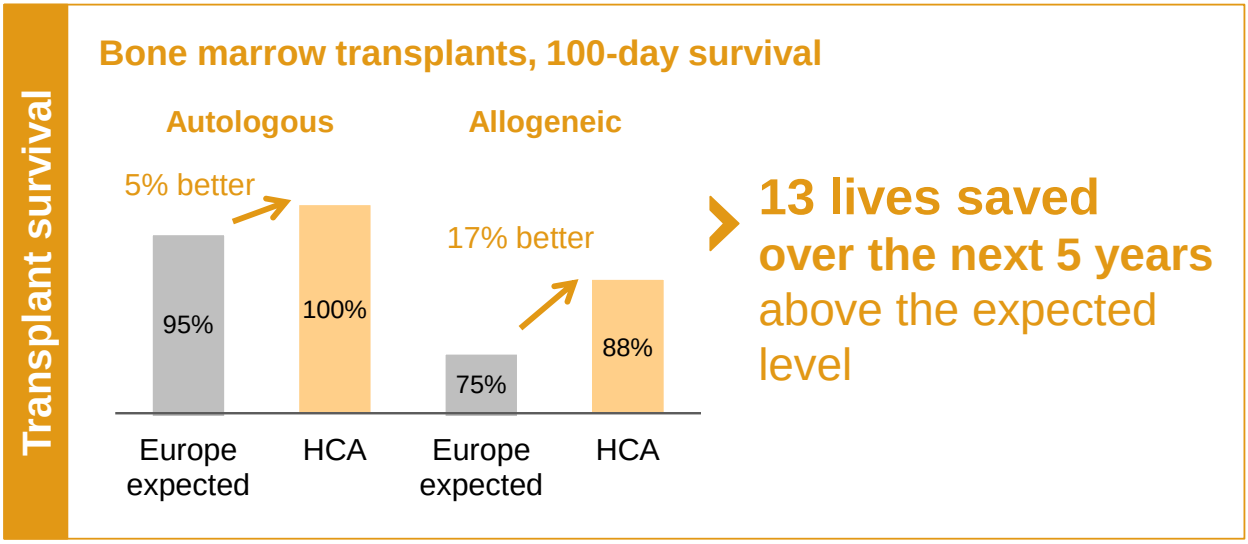
There are many treatment options available for blood cancers, and each patient will not require every one. Therefore providing high-quality care requires selection of the most appropriate treatments and coordination of their delivery. Providing top-quality care requires major, complex infrastructure to support transplants alongside lower cost, less complicated assets, such as those to dispense low-toxicity oral chemotherapy.

9.2. HCA's superior blood cancer outcomes

Over the past two decades, HCA has clearly demonstrated its commitment to meeting the needs of patients suffering from blood cancers. Significant investment has ensured that the HCA network can provide a complete service, incorporating no less than four Haematology Transplant Units. Two of these are located at leading NHS academic centres (University College Hospital in London and The Christie in Manchester), the third is located at The London Bridge Hospital, while the fourth is located in one of the largest private children's hospitals in Europe (The Harley Street Clinic Children's Hospital).

The benefits of HCA's holistic approach are clear. Figure 15 shows the bone marrow transplant outcomes which HCA patients benefit from.

Figure 15: HCA blood cancer outcomes[17]

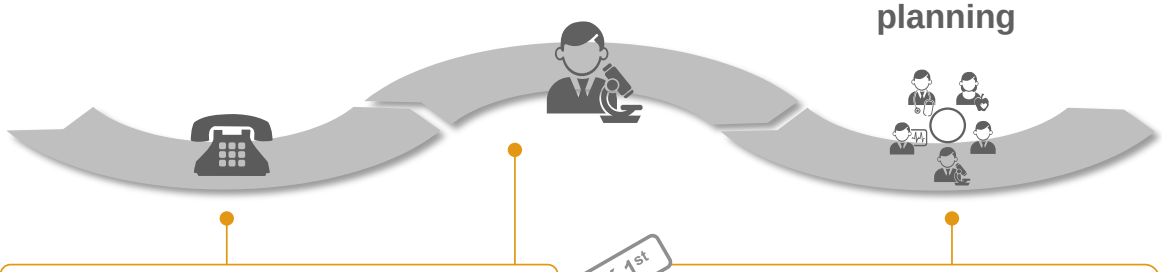


[17] Please refer to the final section of this report for information regarding data sources, assumptions and calculations made throughout

9.3. HCA's blood cancer care

From diagnostics through to the most complex transplant treatments, HCA is able to deliver world-class, integrated care for patients suffering from blood cancers. Figure 16 summarises the key elements which HCA has aligned to maximise the benefits for these patients.

Figure 16: HCA's blood cancer care pathway



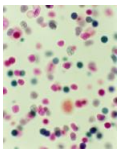
Rapid access, no waiting times
- Minimises disease progression
- Saves patients and their families from unnecessary stress and anxiety

Molecular Imaging Centre
- Improves accuracy of diagnosis, particularly in Lymphoma patients, meaning treatment is as effective as possible

UK 1st

PET MRI imaging machine
- Latest equipment available as new imaging techniques are researched and implemented

Aligned to a specialised leukaemia and molecular cytogenetics lab
- Specialist equipment and personnel deliver top-quality, accurate assessment of samples

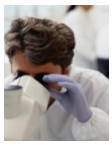


Access to molecular pathology as required
- Accurate and detailed diagnoses via the SCRUK partnership with UCL Advanced Diagnostics

UK 1st

Prospective Multidisciplinary meetings
- Guarantees a complete, robust discussion of each patient prior to treatment commencing
- Ensures the treatment plan is the most appropriate for each patient

Leading pathologists
- Sub-specialised personnel with focused expertise in haematopathology, and the experience to assess difficult and complex cases



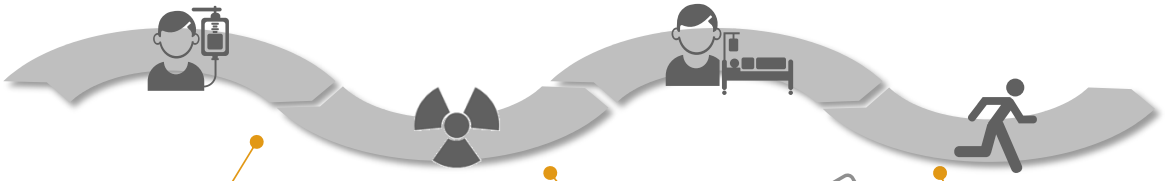
In-house EBM protocols + SOPs
- Maximises quality by ensuring processes are consistent, auditable and repeatable
- In-line with national guidelines

24hr pharmacy service
- Provides patients with access to vital medications day or night

Integrated fertility preservation services
- Patients at risk of encountering fertility issues are able to quickly and easily protect their future

Key: UK 1st = Market-wide; UK 1st = Private only

Chemotherapy | Radiotherapy | Transplant | Survivorship



Top specialists
- Programme led by renowned clinicians from major research centres

Specialist nurses
- Highly trained nurses address the specific needs of blood cancer patients

Trials via SCRUK
- Provides access to the latest trial therapies

Tissue banking
- Drives long-term patient benefits through research

UK 1st

Advanced radiotherapy

- Including the TrueBeam system delivering RapidArc radiotherapy

MacMillan Cancer Centre
- World-class outpatient facilities on the 5th floor of this £100m development

Intensive care unit
- Available when required

Setting of care options
- Patients benefit from the most convenient option for them, from homecare to inpatient

UK 1st

JACIE-accredited partnership transplant unit
- Ensures highly rigorous quality criteria are met

Dedicated transplant coordinators
- Ease patient anxiety throughout treatment

Specially designed inpatient rooms
- Protect vulnerable patients using neutral air pressure, air filters, etc.

Treatment for minimal residual disease
- Latest treatments help prevent relapse

Separate family space

Palliative care services

UK 1st

Paediatric haemato-oncology service
- Provide specialised services for children and adolescents, including transplants, paediatric anaesthetists and endocrinologists & insertion of central venous catheter

Aligned with research activities
- Contributions made to research programmes through key consultants and UCLH partnership

Easy access to supportive and complementary care, plus other required specialties
- Long-term outcomes improved through access to a range of services, including dedicated physiotherapists, dieticians, complementary therapists, psychologists and counsellors, pain and palliative care specialists, and fertility preservation facilities
- Easy access to other specialities such as endocrine and cardiology via the HCA network

Key UK 1st = Market-wide UK 1st = Private only

9.4. Competitor comparison

HCA is one of the few private providers to have made the significant investment required to deliver world-class blood cancer treatments. As shown in Figure 17, few other UK competitors are able to offer such a complete service.

Figure 17: HCA – Comparison with competitors[18]

[18] Scores are based upon publically available information and interviews with HCA clinicians, therefore accuracy may vary according to information available at the time

9.5. Spotlight on innovation: Harley Street at UCH – A public-private partnership that works

Effectively delivering care in highly complex specialities has long been a challenge for providers in the private healthcare sector, and blood cancer services offer an excellent illustration of the challenges involved. “Getting it right” requires vast investment in equipment and facilities, as well as alignment of a wide variety of highly specialised personnel. The activity levels required to justify this level of investment (financial and other) are often only seen in the NHS. Therefore it is little wonder that so few private providers have attempted to build a full blood cancer service.

Overcoming this challenge is important for the future of the private healthcare sector and the patients it serves. Due to its focus on delivering excellence in the most complex areas, HCA is the provider that has contributed the most to developing solutions in this area.

One of HCA’s solutions is to build true partnerships with the NHS. This public-private partnership (PPP) model can deliver huge benefits for patients by combining the strengths of the public and private sectors to provide high-quality care in complex specialities. If well-designed, the model also benefits both the public and private participants: providing incremental revenue for one and an efficient way to deliver high-quality care for the other. Developing a model to deliver these benefits is not easy and delivering a smoothly integrated service can present major challenges. For this reason few providers other than HCA have been able to implement and maintain successful PPP models.

HCA’s Harley Street at University College Hospital unit is widely recognised as one of the most successful PPPs. Occupying the entire 15th floor of the University College Hospital (UCH) cancer centre, this private facility is renowned for providing the full spectrum of blood, bone and soft tissue cancer services to the highest quality standards. It was also the first partnership to acquire the rigorous JACIE accreditation for stem cell transplantation: an internationally recognised, 18-month quality assessment programme.

HCA is proud that patients of Harley Street at University College Hospital benefit from some of the best blood cancer care in the UK. The unit’s specialisation and integration with one of the largest and best academic NHS centres in the UK, combined with HCA’s expertise in operating high-quality private healthcare services, affords major benefits:

- Patients are treated by world-class consultants in-person, rather than a less qualified doctor, as at other units
- Patients are attended by specially trained bone marrow transplant (BMT) nurses
- A prospective MDT for every patient

- Ward care is covered by a ‘specialist registrar’ BMT doctor, rather than a resident medical officer (RMO) with more general expertise

- Clinical Nurse Specialists (CNSs) are available across specialities to meet each patient’s needs, for example adolescent or allogeneic nurses

- A state-of-the-art 36-bed Intensive Care Unit (ICU), which, crucially, is familiar with handling complex haematological cases

- UCH’s intensive care outreach team (PERT) of specially trained doctors and nurses who respond to emergency calls and deliver intensive care to the patient at their location on the ward, rather than transferring them to ICU

- Skilled nurses able to perform complex procedures in-ward, e.g. bone marrow aspiration or central line insertion avoiding a traumatic trip to the laboratory
- The highest service levels, for example interpreters and culturally sensitive psychologists supplied when required

The partnership with UCH has enabled HCA to push the boundaries within this speciality, delivering higher quality care by accessing a wealth of expertise and capabilities that standalone private facilities could likely never secure. HCA has invested significant senior management time and energy to design and build the PPP and ensure major challenges are overcome. To support the partnership, HCA has also invested heavily in the latest equipment and a world-class environment. These support the highest quality care, as well as attracting and retaining renowned clinicians from around the world. HCA also purchases a number of services from UCH, such as specialist nursing and use of other on-site facilities.

As with any good PPP, both parties benefit. The latest equipment helps UCH to retain the best clinical teams and boosts its international reputation for treatment, research and teaching (also raising the competitiveness of the UK as a whole). A number of operational benefits also exist. For example, HCA funds 2 clinical nurse specialists for the unit who, when not assisting with HCA operations, conduct NHS work at no charge. UCH also shares in the profit of the partnership and has many of its variable costs paid by HCA, equating to a significant upside to UCH of around [redacted] per year.

Development of the successful PPP model at UCH (and elsewhere, for example The Christie Clinic) is testament to HCA’s unrelenting commitment to quality. This care delivery model benefits both HCA and NHS patients, and serves as a template for future successful public-private ventures.

9.6. [redacted][19]

[redacted]

[19] [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

9.7. Risks of divestment

Only a small number of private healthcare organisations have invested to build the full suite of capabilities necessary to effectively treat blood cancer patients. Therefore a divestment would have little effect on the competitive landscape in this specialty. HCA suggests that two divestment scenarios exist:

1. [redacted] includes an HCA transplant unit, and reduces the quality of treatment available for all UK blood cancer patients

2. [redacted] does not include an HCA transplant unit, and reduces the number of blood cancer patients able to access top-quality private treatment

In scenario 1, the divested transplant unit will pass to the ownership of an alternative organisation less familiar with running these complex units. If the new owner decides to continue operating the unit (which is not certain, given the risks involved), quality is still likely to drop due to loss of the expertise that HCA has built over the past decade.

Furthermore, in this scenario blood cancer patients in other HCA hospitals will no longer benefit from seamless transfer to the divested transplant unit. Their treatment pathway will be obstructed and coordination will be reduced, leading to poorer quality of care. In addition, some key HCA personnel may relocate to align more closely with the divested unit, further weakening HCA's ability to meet patient's needs.

In divestment scenario 2, [redacted] does not include one of HCA's transplant units. While this may have a smaller impact on HCA's ability to drive the quality of blood cancer care, and associated benefits to the UK, large risks still exist. [redacted] would be removed from the HCA network and no longer have seamless access to its shared infrastructure and services. The blood cancer service at [redacted] would therefore be weakened, and quality would almost certainly suffer.

Beyond transplant treatment, maintaining a high-quality blood cancer service with just one major hospital, rather than a network, will be challenging for the new owners. Delivering excellence in blood cancer care requires many treatment options and the ability to concentrate the more complex activities at one location. This is why the HCA network has been so successful in delivering high-quality care, and why a divestment will result in lower quality care for blood cancer patients.

10. Cardiac care case study

10.1. HCA's superior cardiac care outcomes

Cardiovascular disease refers to all diseases of the heart and circulatory system, including conditions such as stroke, heart failure and congenital heart disease. These diseases are responsible for over 159,000 deaths in the UK each year and their total cost to the healthcare system is £9 billion[20]. The cost to the entire UK economy is higher still, totalling around £19 billion[21].

Cardiac disease is an invisible killer, often striking suddenly and unexpectedly. Identifying the predictive risk factors, and effectively diagnosing and managing cardiac disease, is therefore crucial. Many cardiac patients also require complex interventions, such as cardiac surgery, which demand the highest degree of quality.

HCA is the largest independent provider of cardiac surgery in the UK[22] and serves an increasingly complex mix of high-risk national and international patients. In-line with its commitment to delivering the most complex care to the highest level of quality, HCA has invested heavily to meet the varied needs of cardiac patients. This includes funding dedicated cardiac teams on-call full-time and supporting the highly complex operations of a catheter laboratory. Both of these services have historically proved challenging for other operators to provide.

HCA's network includes three major cardiac surgery units at London Bridge Hospital, The Wellington Hospital, and The Harley Street Clinic, with the latter housing the only top-ranked independent paediatric cardiac unit in the UK. Patients from all over the network are "focussed" at these centres of excellence, and the resulting specialisation provides huge benefits for patients. Some of these benefits are shown in Figure 18, which demonstrates HCA's exceptional cardiac care outcomes[23].

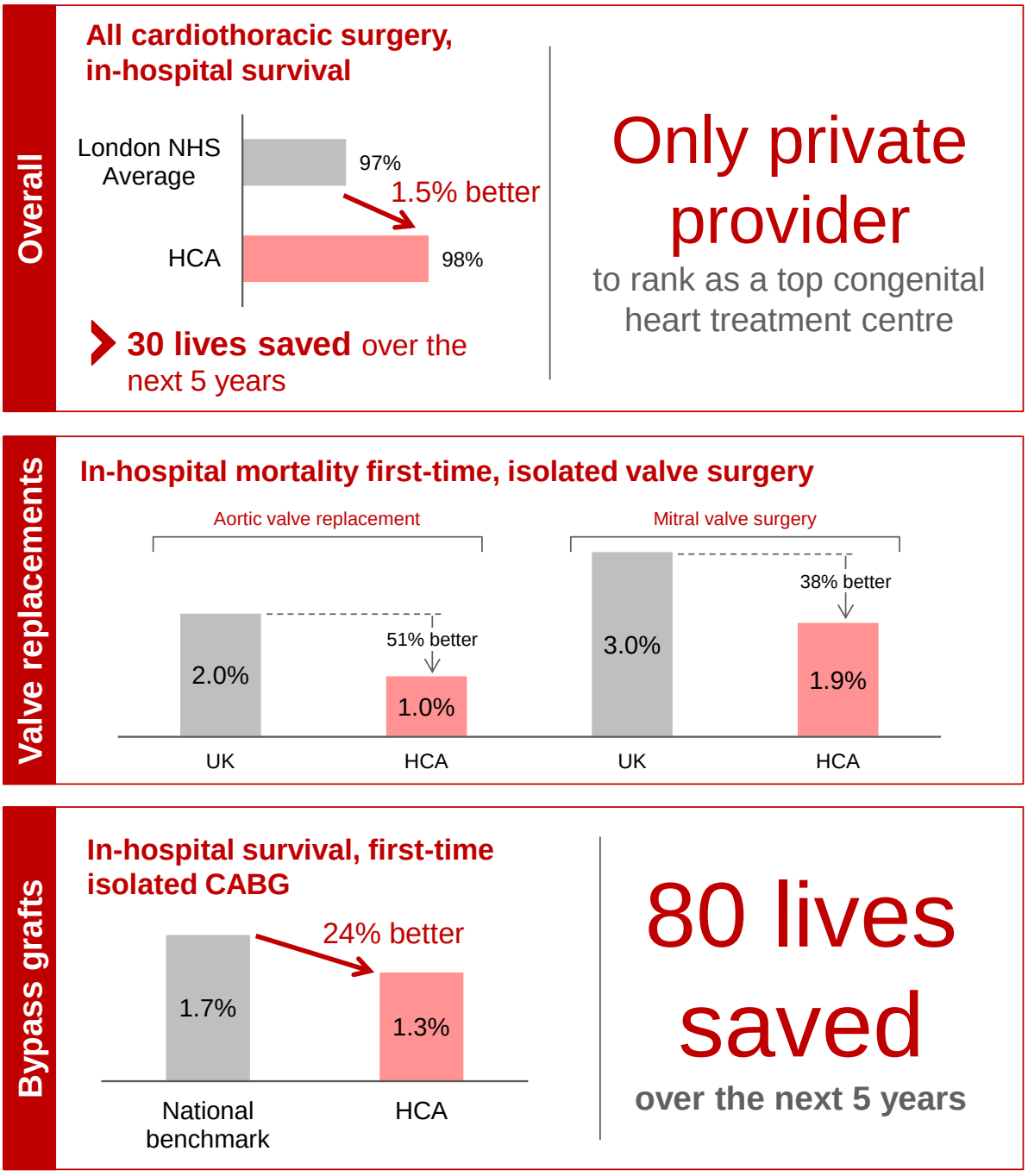
[20] British Heart Foundation, 2013

[21] British Heart Foundation – CHD Statistics compendium (2009 data)

[22] HCA analysis

[23] Note on confidence intervals: HCA confidence intervals are broader than those of national benchmarks

Figure 18: HCA cardiac care outcomes[24,25]



[24] Please refer to the final section of this report for information regarding data sources, assumptions and calculations made throughout

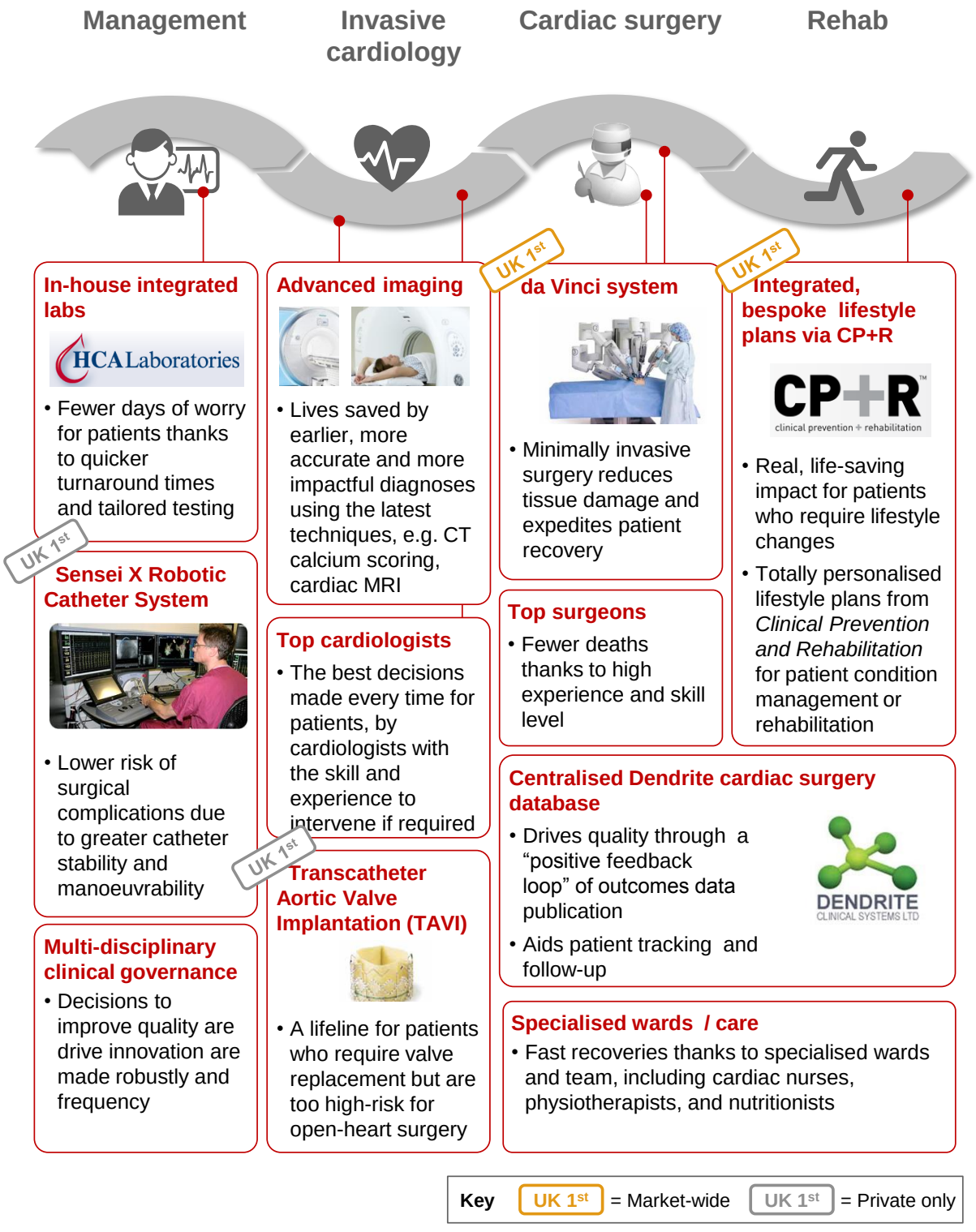
[25] Due to lower volumes, HCA confidence intervals are broader than those of national benchmarks

10.2. HCA's cardiac care

Over the past 10 years, HCA has worked with clinicians from top academic hospitals to build a service which is unmatched in the UK independent sector. HCA uses the clinicians' expertise to direct large investments in cutting-edge treatment technology, as well as spending over [redacted] on infrastructure to monitor and improve quality.

Some of the key elements of HCA's cardiac service are shown in Figure 19. Many of the elements shown are spread across different facilities, and HCA's tightly integrated network enables it to combine these services into a seamless pathway. No standalone hospital could deliver the full complement of specialist services required to achieve this level of excellence for its patients.

Figure 19: HCA's cardiac care pathway



10.3. Competitor comparison

Cardiac treatment is complex and high-risk. As the largest independent provider of cardiac surgery in the UK[26], HCA meets all the needs of a complex cardiac patient. Figure 20 highlights where other independent providers do not have the same features of excellence and high quality available to all patients across their networks. In some cases, other providers may have isolated assets in certain hospitals, but, since their networks are less tightly integrated, not all patients are able to benefit. Without access to the full complement of services, patients will receive a lower quality of care and inferior outcomes to those demonstrated by HCA.

Figure 20: HCA – Comparison with competitors[27]

[26] HCA analysis

[27] Scores are based upon publically available information and interviews with HCA clinicians, therefore accuracy may vary according to information available at the time

10.4. What top quality means for patients[28]

Providing top-quality care transforms the lives of patients and everyone close to them. The following illustrative case studies provide a glimpse of the benefits that HCA provides to its cardiac patients:

[redacted]

[28] [redacted]

[redacted]

10.5. Risks of divestment

Due to the difference in quality between HCA's cardiac network and those of other providers, HCA believes that any divestment would have a significant negative impact on future patient experiences and outcomes.

[redacted] would be removed from the HCA network and no longer have access to its shared infrastructure and services. The likely negative impacts of this include:

- Lack of visibility of outcome data, as [redacted] no longer benefits from participation in the quality programme supported by the Dendrite database. This breaks the "virtuous feedback loop" and would likely lead to a drop-off in quality, as well as decreased transparency for patients
- Fewer opportunities for comparisons and cross-learning with other cardiac units, meaning lower levels of input from similar facilities and no central coordination or benchmarking
- Reduced opportunities for specialised environments and staff, as activity can no longer be effectively concentrated within or outside [redacted], leading to a poorer quality of care
- No access to central, world-leading equipment
- Lack of scale to invest in technological advances that improve patient outcomes, and associated staff training (e.g. TAVI)

For the remaining HCA network, a reduction in patient volumes will mean HCA has a reduced ability to invest in cardiac care delivery. The consequences of this are far-reaching: new research would take longer to be implemented, top clinical talent would find practising in London less attractive, and ultimately patient outcomes and experience would suffer.

11. Orthopaedic care case study

11.1. HCA's superior orthopaedic care outcomes

Orthopaedics is the branch of medicine concerned with disorders or deformities of the spine, bones and joints. It includes conditions such as osteoarthritis and osteoporosis, as well as soft tissue injuries and chronic pain. Orthopaedic problems will impact almost everyone at some point in their lives – for example over 70% of people in developed countries will experience lower back pain[29].

Recent innovation in orthopaedic care has been focused on increasingly precise imaging and ever less invasive and more effective surgical interventions. Better rehabilitation practices and technology have also improved the patient experience and clinical outcomes.

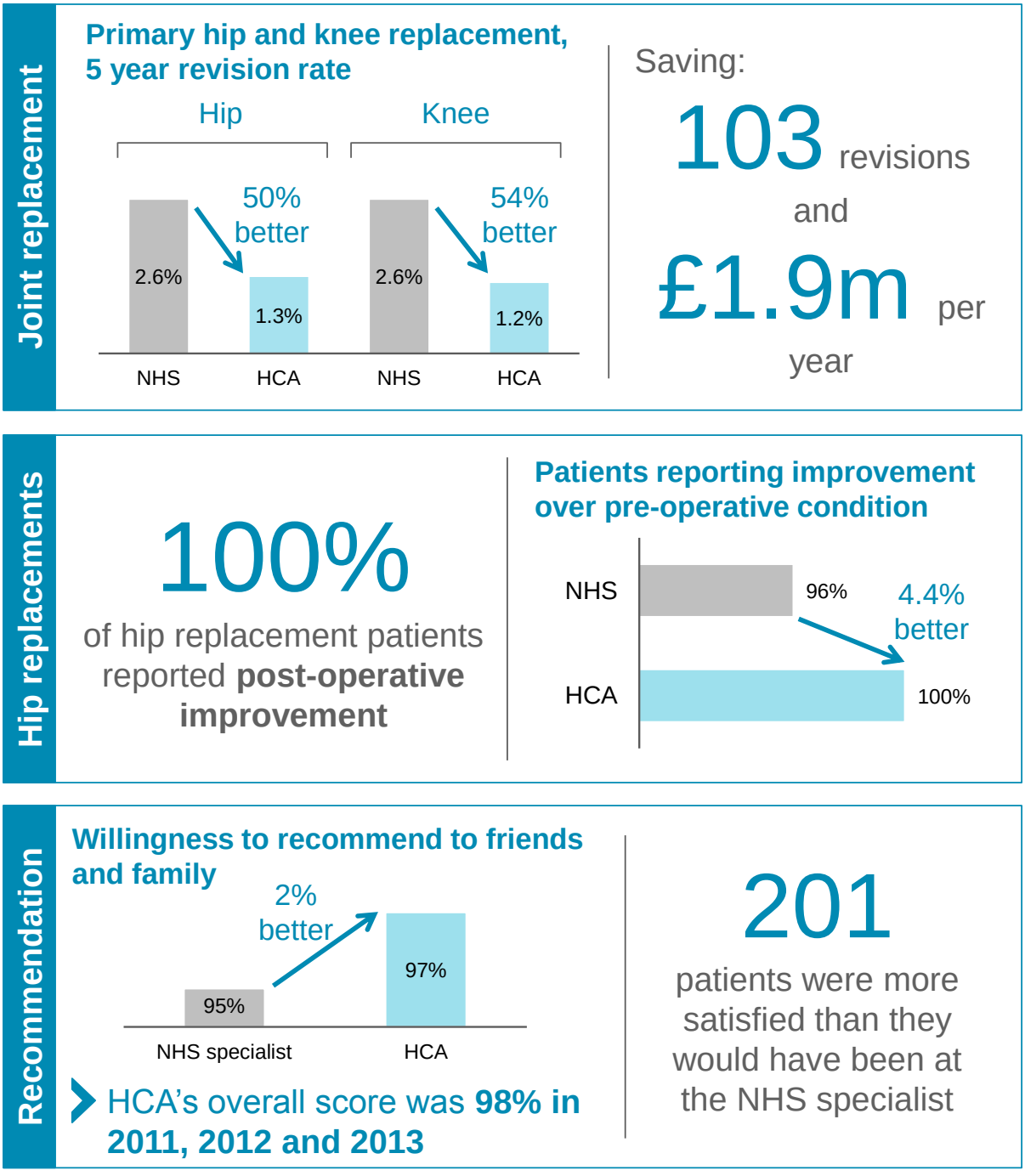
The provision of orthopaedic care is highly competitive. HCA works hard to stay at the forefront of orthopaedic care by tackling the most complex surgery, offering the best specialists, and investing in the latest rehabilitation facilities. In particular, patients come to HCA to receive high-precision, minimally invasive surgery, which they know will result in less tissue damage and have them back on their feet quicker than similar procedures at other facilities.

Figure 21 shows a number of the patient benefits of HCA's orthopaedic service.

Note: Minimally invasive surgery is one important element of how HCA drives quality and innovation in orthopaedics, and the following section covers its patient benefits. It is also worth noting that HCA is driving innovation in minimally invasive surgery across many other specialties.

[29] British Orthopaedic Foundation, Research Agenda 2013

Figure 21: HCA orthopaedic care outcomes[30,31]



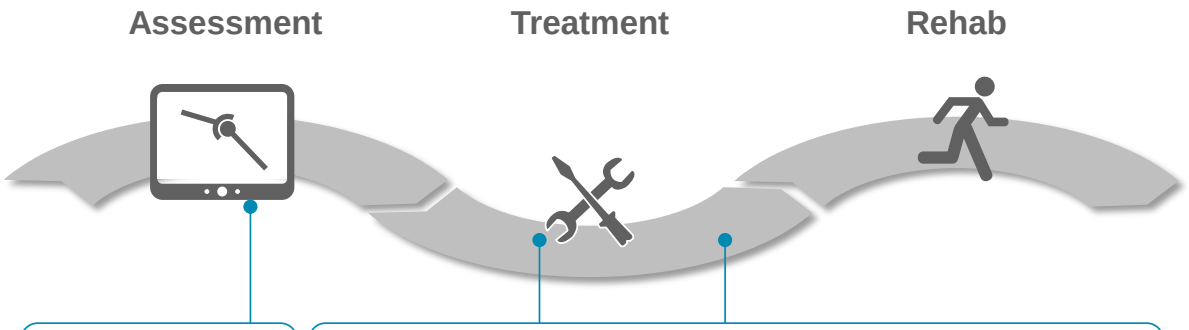
[30] Please refer to the final section of this report for information regarding data sources, assumptions and calculations made throughout

[31] Hip replacement uses HCA internal revision rate – see notes section for details

11.2. HCA's orthopaedic care

To deliver an outstanding quality orthopaedic service, HCA has made significant investments. Some of the key elements of HCA's service are described in Figure 22. Many of the elements shown are spread across different facilities, and HCA's tightly integrated network enables it to combine these services into a seamless pathway.

Figure 22: HCA's orthopaedic care pathway



Latest imaging technology

- More accurate diagnoses lead to better treatment, via latest 3T MRI, CT, X-ray, SPECT (etc.) that are unavailable elsewhere
- HCA ensures all equipment is under 5 years old, to make the latest technology available to patients

Appointment availability

- Providing patients with an efficient and convenient service

Rapid imaging turnaround

- Results in <24 hours, reducing time to diagnosis and associated patient uncertainty

Top-class surgeons

- Lower risk of complications, infection , revision, etc. from the fastest and most skilled surgeons
- Sub-specialised to optimise skills in each area
- High activity levels to refine skills, familiarity and team's ability

Specialised, focused facilities and teams

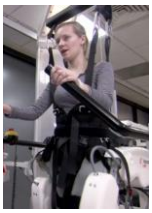
- Dedicated theatres and wards allow for an advanced, patient-centric set-up, e.g. walk-in showers
- Specialist nursing staff and specialist physiotherapists are more familiar with the needs of orthopaedic patients
- Clinical teams are 'well-oiled' leading to highly efficient operations and top outcomes

Research and development

- Cutting-edge techniques available to patients who require advanced or unconventional treatment, e.g. use of computers, robotics in surgery, cartilage transplants, stem cell reconstruction etc.

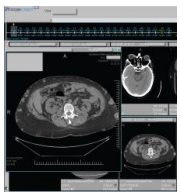
Rehabilitation facilities

- The country's largest private neuro-rehabilitation facility
- The UK's first rehabilitation robot



Top-class IT infrastructure

- Enables access to information conveniently and quickly, e.g. remote access to imaging information



11.3. Competitor comparison

Orthopaedic care is one of the most competitive areas of care. However, HCA remains differentiated from competitors in quality and innovation, and able to deliver a superior service for patients. Figure 23 shows a comparison across features of excellence in delivering orthopaedic care. Although many private hospitals deliver an orthopaedic service, few are able to operate at this very high level of quality across all facilities, serving all patients across the network. For example, some providers are located near major NHS centres such as The Royal National Orthopaedic Hospital, and the concentration of talent has benefited the private hospital. However, due to the less integrated nature of their network, other hospitals in their network do not see the benefit.

HCA's three major orthopaedic centres each have all the features of an orthopaedic centre of excellence, as shown in Figure 23.

Figure 23: HCA – Comparison with competitors[32]

[32] Scores are based upon publically available information and interviews with HCA clinicians, therefore accuracy may vary according to information available at the time

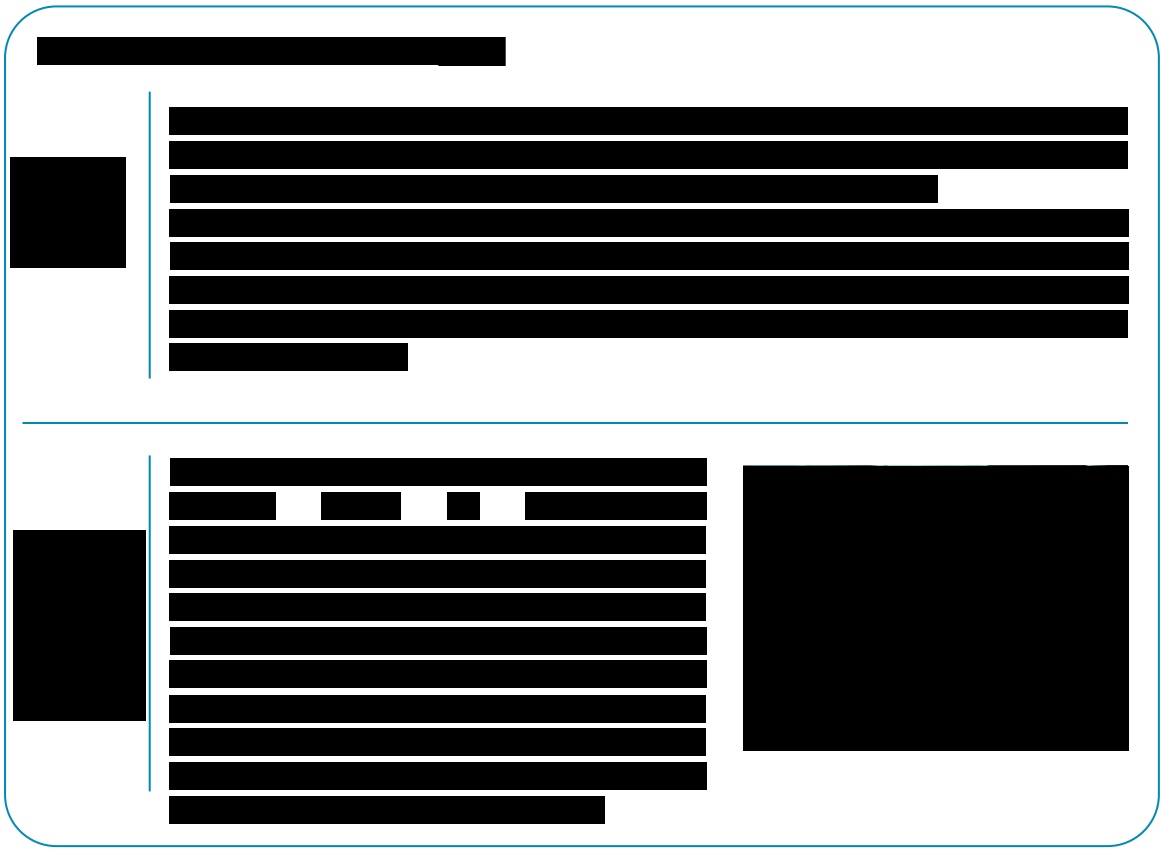
11.4. [redacted][33]

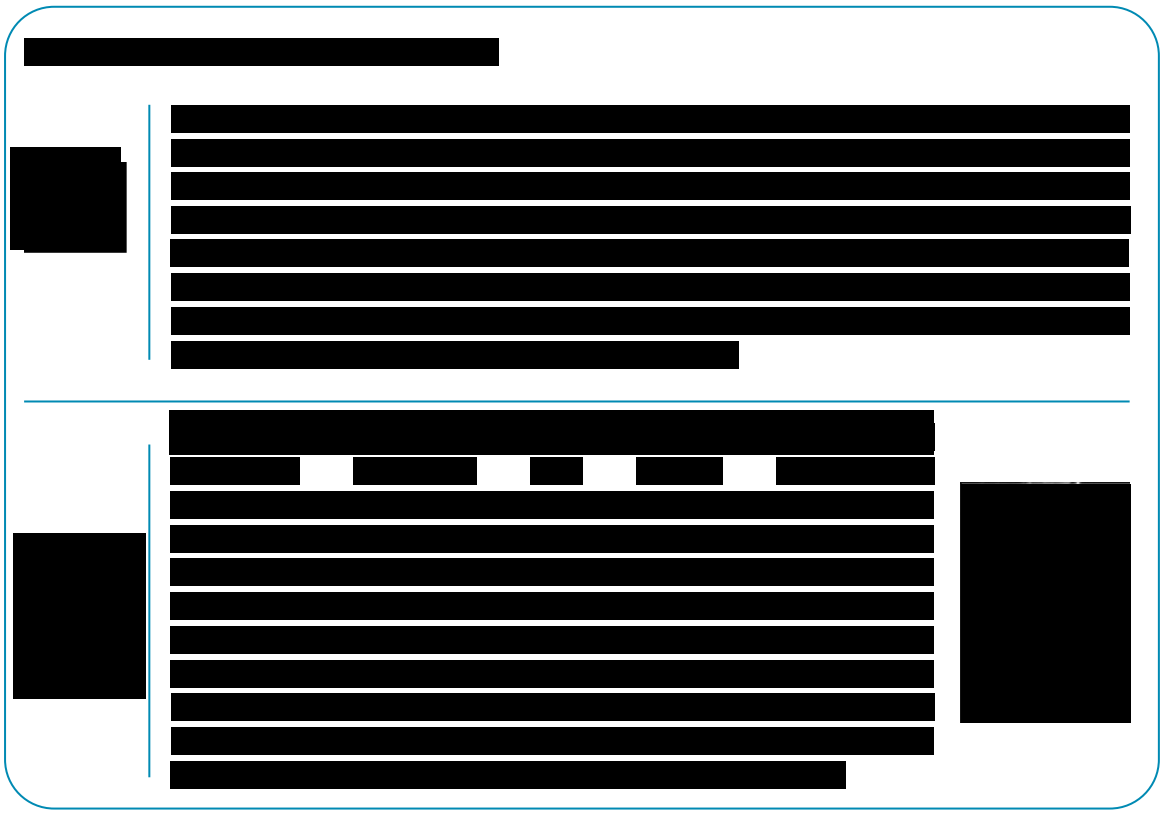
[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	

[33] This section contains patient stories to illustrate how HCA's quality benefits typical patients. Although indicative these are not past HCA patients





11.5. Risks of divestment

HCA's orthopaedic services operate at the very highest quality level in the UK. For this reason, HCA believes that any divestment would have a significant negative impact on future patient experiences and outcomes.

[redacted] would be removed from the HCA network and no longer have access to its shared infrastructure and services. The likely negative impacts of this include:

- Reduced access to sub-specialised clinicians
- Reduced focus in activity meaning specialised nurses and physiotherapists can no longer be justified
- Lowered ability to invest in dedicated facilities such as orthopaedic theatres and wards
- Loss of access to unique state-of-the art facilities at other HCA facilities, e.g. 3T MRI
- Reduction in investment in new equipment, as the new owner does not benefit from the same economies of scale as HCA

This would have detrimental implications for both patient safety and service quality, and is likely to drive away the top clinicians who demand a highly efficient and industry-leading working environment.

For the remaining HCA network, a reduction in patient volumes would mean HCA has a reduced ability to invest in orthopaedic care delivery. This would limit HCA's ability to maintain highly specialised centres, provide specialised wards or invest in new equipment such as 3D Gamma Cameras, advanced CT scanners or MRIs. Consultants' ability to refer patients smoothly across the network would also diminish, ultimately leading to a more convoluted and less integrated patient pathway. Overall, the quality of service available to private patients of orthopaedic care is likely to drop as a result of any divestment.

12. Data sources, assumptions and calculations

[redacted]

[redacted]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