

CC's empirical analysis methodology of price outcomes in negotiations between hospital operators and insurers: HCA's comments

20 June 2013

1. Introduction

1.1 HCA's comments below relate to each of the sections listed (a) – (c) in paragraph 2 of the CC's methodology paper, namely:

- Price outcomes
- Drivers of price outcomes
- Insurer buyer power measures.

2. The comparison of "price outcomes"

General issues

2.1 HCA agrees with the CC's view, expressed at the outset of its methodology paper, that "*comparing insured price outcomes is not a straightforward task*".¹ There are a number of inherent features of the private healthcare market which represent a significant challenge to the conduct of such analysis. Indeed, these challenges have in the past presented significant difficulties for insurers and hospital operators who have attempted to compare prices on a true "like-for-like" basis.²

2.2 These features are summarised below:

- **Nature of price negotiations:** HCA agrees with the CC's view that the nature of insurer price negotiations, which do not generally focus on the price of individual treatments but relate to a group of services, renders the comparison of specific treatments across different hospital operators unreliable.³ The risk of bias in the CC's analysis is more pronounced when comparing the price of individual treatments or even a subset/basket of treatments.
- **Treatment mix:** The CC correctly notes that a hospital operator may offer a different treatment mix to its rivals.⁴ For example, one hospital operator may undertake a greater proportion of "tertiary" or complex cases, or conduct a different proportion of outpatient / day-case / in-patient treatments compared to a rival operator. Such differences in the treatment mix between hospital operators would affect the respective costs of delivering care faced by each operator, and, in turn, the average revenue per admission.

¹ Paragraph 6 of the CC's methodology paper

² For example, in HCA's submission replying to Aviva's response to the Annotated Issues Statement, there was reference to an analysis comparing rate tariffs using third party benchmarking data, however this did not generate meaningful conclusions. HCA noted in its submission that "*...there is in fact no concrete evidence that, on a "like-for-like" basis, reflecting the nature of the treatments provided, HCA is significantly more expensive than other London hospitals.*"

³ Paragraph 6 of the CC's methodology paper.

⁴ Paragraph 7(a) of the CC's methodology paper.

- **Hospital operator characteristics:** A range of hospital-specific factors, such as its location and legal structure can also affect price outcomes. HCA has repeatedly submitted to the CC that a number of its central London-based competitors have inherent cost advantages over it:
 - NHS PPUs, who benefit from association with established NHS Trusts, can utilise otherwise costly infrastructure as part of their service offering without fully accounting for its cost. In addition, it can offer clinical staff "unmatchable" employment terms, for example, relating to pension provision, which enable it to offer lower salaries compared to independent operators.
 - Hospitals owned by charities can benefit from tax and equity-finance advantages. Recent analysis prepared on behalf of HCA⁵ estimated that the tax advantages of having a charitable status can be very significant. Taking the example of the London Clinic, the paper estimated that in 2011 it saved £6.8 million through corporate tax and business rates relief and £3.1 million through VAT savings, representing around £10 million – a material proportion of the London Clinic's 2011 turnover, £124 million.
 - Vertically integrated operators such as the BUPA Cromwell, which is owned by a PMI provider that is dominant in its market and that has openly engaged in a successful strategy to re-direct patients away from HCA to its own hospital, has a significant advantage over HCA. This advantage becomes apparent when closely examining each sphere of influence a PMI provider such as BUPA has in the typical PMI claim pathway (see **Exhibit 1** for an illustration of this pathway).

The CC has yet to acknowledge the role of hospital-specific characteristics in the market, which are capable of having a significant bearing on the costs faced by a hospital operator. It is particularly pronounced in Central London, given the number of hospitals owned by charities, the existence of sizeable PPU competitors and the presence of the BUPA Cromwell.

- **Patient-specific factors:** Patients admitted for specific treatments can exhibit vastly different characteristics. For example, patients will tend to be of different ages, the severity and/or progression of their illness may differ, there may be complications arising out of the patient's medical history (e.g. the existence of co-morbidities or previous/existing medical treatments) or complications arising in the treatment underway. These factors can influence the length of a patient's hospital stay in addition to treatment requirements (e.g. tests and drugs required). The patient's preferences and lifestyle expectations may also influence the type of treatment, whether the patient is admitted overnight and, if relevant, the type of prosthesis used. All of these factors influence the type of care provided, and, as a corollary, the associated cost of treatment.⁶

⁵ This analysis was prepared by Pielle Consulting and Cass Business School on behalf of HCA International and submitted to the CC as Annexe 1 of HCA's response to London Clinic case study, submitted on 7 June 2013.

⁶ See, for example, the case studies set out in Annex 1 of HCA's Response to CC in relation to Data Room exercise and the CC's Working Paper: Price concentration analysis for self-pay patients.

In its self-pay price concentration analysis ("PCA") the CC accepted that some patient specific factors may influence prices, therefore included some patient controls in the PCA. Whilst HCA considers that the controls used (patient age, gender and patient length of stay) are insufficient, the CC has not even included such basic controls in its proposed methodology for comparing insured price outcomes.

- **Quality of care:** In the same way that a hospital operator's treatment mix must be accounted for as part of any price-comparison analysis, the quality of care must also be considered. Quality of care manifests in a number of ways, all of which affect the cost of care as well as the value for money of the services provided:
 - *Quality of treatment:* The quality of the medical intervention can improve the likelihood of a successful clinical outcome, speed up treatment time, reduce the risk of infection or mitigate the need for post-operative care/recovery. By way of example, the quality of treatment can be influenced by the use of new, innovative treatment technologies which are more accurate, targeted and minimise the invasiveness of the procedure.
 - *Quality of facility:* This relates to the quality of the clinical environment and patient support, for example, the level of nursing cover in wards, the experience, training and attentiveness of clinical staff; the quality of treatment room rooms, theatres and wards; the availability of on-site critical care (should complications arise); the quality of patient or guest services such as catering and leisure facilities.

Hospital operators can differ in terms of the investments they make in their facilities, staff and treatment technologies, all of which can influence the quality of care. It is surprising that no account of such quality-based factors has been acknowledged in the CC's methodology paper (let alone factored into its quantitative analysis) as HCA has repeatedly emphasised in its submissions to the CC the importance of quality of care in its market offering and the paramount nature of quality as a parameter for competition in the market. In that regard, in a competitive market one would expect to see price differentials reflecting both the different cost of provision for different levels of quality as well as the different value of services provided depending on the level of quality.

- **Other data issues:** This includes issues such as whether the CC has a sufficient number of measurements for each provider to conduct a robust statistical analysis after applying its methodology for the price index, for example, whether the CC had made provision for data discrepancies between hospital operators, and the methodology adopted by the CC when cleaning/preparing its data for analysis.

2.3 HCA identified a number of the above issues relating to the inherent complexity of comparing price outcomes in its submission replying to Aviva's response to the Annotated Issues Statement.⁷ The submission noted previous efforts made by HCA to conduct a price analysis with Aviva over the last 6-9 months and concluded that, once case mix adjustments have been made and [§<], there is no evidence that HCA is generally more expensive than other independent London hospitals.

⁷ See paragraph 6.1 – 6.11 of HCA's submission replying to Aviva's response to the Annotated Issues Statement, submitted to the CC on 29 April 2013.

- 2.4 Overall, HCA's concern is that the CC has failed to identify important features of the market in its methodology paper, or, where it has identified features of the market capable of distorting its insurer price analysis, the CC has not taken appropriate steps to strengthen its proposed methodology. These issues impact on the relevance and accuracy of each of the analyses conducted by the CC and any inferences that could be drawn from the results.
- 2.5 As an aside, in light of the complexity and potentially distortive impact of the above factors, it is imperative that the CC consults hospital operators about the precise workings of its methodology, the exact size and composition of all "baskets of treatment" it adopts, the identity of comparator hospitals and any adjustments or data cleaning it performs.
- 2.6 The CC proposes to use two different types of price outcome measure: (i) average revenue per admission (calculated for each insurer and across all insured patients) and (ii) a price-index for a common basket of treatments. For each measure, we consider below how the CC's finding from these analyses may be affected by the features identified above.

Average revenue per admission (by insurer and across all insured patients)

- 2.7 The comments below apply to both the "average revenue per admission by insurer" and "average insured revenue per admission" measurements.

Table 2.1: Assessment of the CC's proposed average revenue per admission measures

Feature	Issue
Nature of negotiation	<p>The CC considers that this issue does not arise as the entire range of treatments offered by hospital operators, and their respective prices, are considered together.</p> <p>However, a separate issue that the CC has not identified in its paper is that hospital operators and insurers may include "retroactive" rebates in their contractual arrangements. These rebates have the effect of lowering the effective price to an insurer. [§<]. However, the price-lowering effect of this rebate would not be captured in the prices used in the CC's proposed methodology as the rebate is paid in the following financial year.</p>
Treatment mix	<p>This feature of the market raises fundamental concerns with the use of this measure.</p> <p>First, as the CC is aware, the average revenue measures do not, in any way, cater for the different mix of treatments that different hospital operators perform. The CC notes in its working paper on the private healthcare market in London: "<i>It may therefore be that there are some more complex treatments performed privately in central London that cannot be done privately, or are less accessible, in many other parts of the country</i>".⁸ HCA has previously submitted to the CC that it has a strong focus on tertiary clinical specialisms.⁹ The CC noted in its London working paper: "<i>HCA is again the largest provider of tertiary</i></p>

⁸ See paragraph 28 of the CC's paper on private healthcare in central London: horizontal competitive constraints.

⁹ HCA's reply to Issues Statement, paragraphs 3.6 and 3.11.

	<p><i>treatments by revenue in Greater London. HCA also earns the highest proportion of its total revenue from this group of treatments.</i>"¹⁰ These higher acuity cases may involve the use of more sophisticated treatment technology, a lengthier inpatient admission period, the use of critical care support, higher levels of patient monitoring, so forth. In light of this activity focus, an operator such as HCA operating in a competitive market would be reasonably expected to generate higher revenue per admission. However, the average revenue measure does not, in any way, control for treatment mix.</p> <p>Second, the average revenue measurements do not cater for the difference mix of inpatient, day-case and outpatient treatments that different hospital operators perform. On an admission basis, in general the overall cost of treating an inpatient will be higher as it comprises the treatment cost, plus an overnight bed and medical care for one or more nights. To the extent that a hospital operator has a greater proportion of inpatients compared to another provider, its costs, and hence average revenue per patient could be expected to be higher. The CC has not attempted to control for this in its analysis.</p> <p>Third, with respect to the CC's average insured revenue per admission calculation, the CC calculates total revenue earned from insured patients (that is, outpatient, day-case and inpatient revenue) and divides it by the total number of admissions. In the CC's methodology, an "admission", however, only capture day-case or inpatient admissions. Therefore, if a hospital operator has a relatively higher proportion of outpatient revenue compared to other operators – this would naturally result in a higher figure for average revenue <u>per admission</u>. This is because outpatient visits are not counted as "admissions" – yet outpatient revenue is being incorporated into the revenue numerator (revenue) – thus biasing the measurement. It is not clear why the CC has adopted such an approach. Nor is it clear from the CC's methodology paper whether this issue also affects its "average revenue per admission by insurer calculation".</p>
<p>Hospital operator</p>	<p>These measures do not take into account the characteristics of different hospital operators that prevail in the private healthcare market and the resulting cost implications.</p> <p>As noted above, hospital operators based in London may have an entirely different cost profile (for example, relating to staff, property and other operating costs) to those in other regions of the UK – a point acknowledged by the CC.¹¹ This is illustrated by the Market Forces Factors¹² used by the NHS to calibrate the amounts paid to NHS Trusts in the Payment by Result framework. The costs incurred by NHS Trusts located in the London Area are significantly higher than in the rest of England.¹³</p> <p>However, even <u>between</u> hospital operators in London there are different ownership</p>

¹⁰ See paragraph 58 of the CC's paper on private healthcare in central London: horizontal competitive constraints.

¹¹ Paragraph 16 of the CC's methodology paper.

¹² Market Forces Factors are calculated for each NHS Trust, to reflect the fact that costs such as staff, land and building are typically higher in some parts of the country than others. A Market Forces Factor of 1.0 means that a provider would be paid 100% of the NHS tariff for a given treatment, whereas a Market Forces Factor of 1.5 means that a provider would be paid 150% of the NHS tariff for the same treatment.

¹³ See paragraph 22.3 of HCA's response to the CC's Market Questionnaire, where it was noted that The London Trusts such as UCLH receive 25% - 30% higher reimbursement under the MFF than the national average.

	<p>characteristics which can have material cost implications which the CC has as so far omitted reference to in its analysis.</p> <p>HCA faces formidable competition from hospitals that have a charitable legal status, such as the London Clinic, King Edward VII, St Johns and Elizabeths and St Anthony's Hospital – a list that includes some of HCA's closest competitors.</p> <p>Their charitable legal status provides significant cost advantages. Analysis submitted to the CC estimated that the size of this advantage can be highly material.¹⁴ This ownership status also has the added benefit of providing a free equity finance pipeline through charitable donations. Hospitals with charitable legal status can exploit this advantage when setting prices for treatments, potentially resulting in lower average revenue per admission.</p> <p>HCA also faces a strong competitive constraint from NHS PPUs. NHS PPUs receive clinical infrastructure support, which HCA believes is not properly accounted for when PPUs set prices for treating patients. This means NHS PPU treatment prices are, in effect, subsidised by the NHS. In addition, PPUs can benefit from other advantages, such as the recruitment of staff, an established base of consultants from the main NHS Trust and bulk-purchasing power when procuring supply inputs. This unlevel playing field can be exploited by NHS PPUs when setting prices, resulting in lower average revenue per admission.</p> <p>In its self-pay PCA, the CC recognised the role of costs in explaining prices and, albeit inadequately, attempted to control for costs using an average direct cost measure. Whilst HCA does not consider the control used by the CC to be adequate¹⁵, it is surprised that the CC has not even attempted to control for costs of the different hospital operators in its methodology for insured price outcomes.</p>
<p>Patient factors</p>	<p>As is the case for treatment mix, this measure does not adequately control for the characteristics of the patients admitted by different hospital operators. HCA's strong focus on higher-acuity medical cases means that the patient episodes that occur in its hospitals are likely to be of a more complex nature. This, in turn, may involve a whole range of factors that increase the cost of care, such as the use of a more sophisticated treatment modality, lengthier admissions, critical care support, higher pathology charges or a greater utilisation of high-cost consumables.</p> <p>In the CC's price concentration analysis, an, albeit inadequate, attempt had been made to control for patient acuity factors (for example, by considering lengths of stay), yet no such attempt has been made in respect of this measure.</p>
<p>Quality of care</p>	<p>HCA places a huge importance on continuous investment in its hospitals and, to that end, reinvests its profits¹⁶ back into its hospitals. This is done with the sole objective of raising the standards of care at its hospitals in a highly competitive market where its competitors are also investing substantially in their facilities. HCA has endeavoured to be a market leader in terms of innovation, offering new treatments and technologies in order to maintain</p>

¹⁴ See paragraph 2.2, bullet entitled "Hospital operator characteristics".

¹⁵ See HCA's response to the CC in relation to the Data Room Exercise and the CC's working paper: Price concentration analysis for self-pay patients.

¹⁶ See HCA's response to the Issues Statement, paragraph 3.14, where it was noted that [redacted].

	<p>its competitive position and improve patient outcomes.</p> <p>This emphasis on providing services of a higher quality can be reasonably expected to yield higher revenue per admission - because of the different cost and value of the services. However, the CC's measure does not, in any way, attempt to control for quality factors, for example, the quality of the treatment modality, clinical support, surrounding environment or choice of prosthesis are not accounted for.</p> <p>As an aside, whilst a higher quality service may yield higher revenue <u>per admission</u>, in the long-run, the associated spend of treating a patient over their life-time would be expected to be lower if a higher quality service improves the probability of successfully diagnosing an illness and treating the patient (e.g. minimising the risk of a relapse), reduces the impact of harmful side-effects or infection, or reduces the number of treatment episodes required to successfully treat a condition. A focus on admission revenue would not capture these longer-term benefits to the patient and insurer that are attributable to higher levels of quality and clinical innovation.</p>
<p>Other data issues</p>	<p>The CC highlights, in footnote 6 of its methodology paper, that there potential discrepancies in the data that would affect its analysis. This includes the fact that some hospitals may bundle pre- or post-operative treatments/tests in the same invoice, whereas others may invoice separately – thus biasing the number of "episodes" counted for some hospital operators. In addition, the CC pointed out that there may be errors in the data, for example, where hospital operators have double-billed for the same procedure, which would affect the data. HCA highlighted a number of issues with the use of Healthcode data (also used in this analysis).¹⁷</p> <p>There is also a concern over the use of data from a single year, in this case, 2011. The nature of hospital operator / insurer negotiations means that rates discussions will often relate to the provision of services over a number of years – with pricing concessions or uplifts being agreed to cover the <u>whole period</u>. As a result, specific pricing uplifts or concessions may be agreed for one year that are later "balanced out" over the remaining years of the agreement (or as part of a new agreement). Therefore, taking admission revenue from a single year may, in itself, generate misleading results.</p>

2.8 The CC believes the average revenue measurements can provide an insight into the degree of market power held by hospital operators in negotiations. However, HCA strongly contends that this is not the case. Without properly controlling for the range of factors capable of materially influencing the CC's measure, the CC's proposed methodology is not sufficiently robust to draw any conclusions on the level of market power held by hospital operators.

Price index of common basket of treatments by insurer

2.9 The CC separately proposes to calculate:

- A national price index on a common basket of treatments offered by all of the hospital operators to each insurer.

¹⁷ See section 3 of HCA's Response to the CC's Data Room Exercise and Price-Concentration Analysis working paper.

- A London price index comprising two operators only, HCA and its "closest competitor".
- A calculation of the major London provider's (HCA's) premium relative to the "next most expensive operator".

2.10 The CC suggests that a common basket of treatments price index controls for the "*mix effect of different treatments provided by hospital operators*",¹⁸ however, this measure remains subject to bias as a result of a number of other aspects the CC has failed to address. These are highlighted in Table 2.2 below.

2.11 As a general note, in light of the challenges and complexity of conducting such an analysis, it would have been prudent for the CC to consult hospital operators on which treatments comprise each of its "common baskets of treatments", the proportion of total hospital activity these treatments represent for each hospital operator, the identity of all hospital operators used as comparators (such as HCA's "closest competitor" in the London index), as each of these may influence the CC's proposed price outcome measurements. Such information would allow HCA to conduct a more meaningful review of the CC's proposed methodology and to offer a more detailed response.

2.12 In addition, with particular respect to the CC's proposed London price measurements, the drafting of its methodology paper is not clear. HCA would find it helpful if a hypothetical step-by-step example calculation was published as part of a supplemental methodology paper to provide a better understanding of the measurements being proposed.

Table 2.2: Assessment of the CC's proposed price index of common basket of treatments by insurer – National index / London Index / London premium

Feature	Issue
<p>Nature of negotiation</p>	<p>National index / London index / London premium</p> <p>The CC acknowledges that the requirement to include <u>all</u> hospital operators in its common basket of treatments by insurer necessarily "<i>reduces the number of common treatments in the basket that could be compared</i>". HCA's concern is that, due to the nature of insurer negotiations, this reduction in scope may result in the relevant index not properly reflecting the bargaining situation between hospital operators and insurers.</p> <p>The CC itself recognises this issue (at paragraph 6 of its methodology paper) when it notes: "<i>comparing the price of too small a number of treatments may lead to distorted results as the hospital operator may have higher or lower prices elsewhere</i>".</p> <p>In addition to the absolute number of treatments, it is important to understand the proportion of hospital activity the basket represents to determine how representative the price of treatments in the basket is of overall pricing and bargaining power. Whilst the majority of one hospital operator's treatment may be included in the CC's basket, another with a more diverse range of treatments may have a much smaller proportion of its treatments included in the basket.</p> <p>It is therefore not possible to comment further on whether the CC's proposed basket</p>

¹⁸ Paragraph 7(b) of its methodology paper.

	<p>represents too small a number of treatments as the CC has failed to disclose which treatments are included in the price index and what proportion of admissions and revenue for each hospital operator this represents. Therefore it remains unclear to HCA whether the CC has appropriately addressed this issue.</p> <p>A separate issue that the CC has not identified in its paper is that hospital operators and insurers may include "retroactive" rebates in their contractual arrangements with insurers. These rebates have the effect of lowering the effective treatment price to an insurer. HCA has such arrangements in place with Aviva and BUPA. However, the price-lowering effect of this rebate would not be captured by the CC's proposed methodology.</p>
<p>Treatment mix</p>	<p>National index / London index / London premium</p> <p>This measure should theoretically control for the mix of different activity undertaken by different hospital operators as it relates to specific treatments.</p> <p>However, as the CC may be aware, it is not always the case that hospital operators adopt a consistent approach to CCSD classifications. This potential mismatch of treatment classifications may frustrate a like-for-like comparison. This issue also highlights the importance of the CC disclosing the treatments comprising each basket.</p> <p>Additionally, the mix of inpatient and day-case treatments provided by each hospital operator and to different insurers is not accounted for in the CC's proposed methodology. The CC recognises that some treatments may be offered in either a day-case or inpatient setting. It is likely that the CC's basket of treatments will include some such treatments. It may be the case that some hospital operators have a higher proportion of inpatients than other providers (if treating more complex cases within the same CCSD). As the costs of inpatient care are in general higher, this would be reflected in the prices agreed with insurers.</p>
<p>Hospital operator</p>	<p>National index</p> <p>The CC expressly acknowledges that the cost profile of a hospital operator, which has almost all of its hospital facilities located in central London, could be different from the cost profile of hospital operators that do not have a significant central London presence.¹⁹</p> <p>The CC felt the characteristics of HCA's hospital portfolio are markedly different from those of Spire, Nuffield, BMI and Ramsey that it deemed it necessary to exclude HCA from the second segment of its analysis, relating to "drivers of price outcomes". It is therefore peculiar that, in this case, the CC sees it fit to include HCA in a price index with those other national operators.</p> <p>As the national index is unlikely to offer a relevant or accurate insight into the relative market power of HCA compared to other national hospital operators, one would expect HCA to be similarly removed from the National index.</p>

¹⁹ See paragraph 16 of the CC's methodology paper.

	<p>London index</p> <p>The CC has constructed a separate London price index solely comprising HCA and its closest competitor in London.</p> <p>However, the CC has not disclosed the identity of this hospital operator. Without this information, HCA cannot properly comment on whether the characteristics of that rival, such as its legal structure or its specialism focus may influence the CC's price outcome analysis. As highlighted by HCA, some of HCA's closest competitors in London have significant in-built cost advantages over HCA.²⁰</p> <p>The price index comparison of HCA to one other London operator is not sufficient to understand whether price differences are driven by cost or value. The CC does not appear to have attempted to analyse the difference cost bases of operators despite having obtained significant amounts of financial data from HCA.</p>
<p>Patient factors</p>	<p>National index / London index</p> <p>The methodology for this measure does not in any way control for varying patient acuity. In HCA's Response to the CC's Data Room Exercise and Price Concentration Analysis working paper, HCA submitted a number of case studies demonstrating how the specific requirements of a patient undergoing the <u>same</u> treatment (even after controlling for age, gender and length of stay) can result in a large differential in the episode price charge.²¹ In the three cases highlighted for the CC, the difference in cost for providing the same treatment to two different patients was 54 per cent, 36 per cent and 13 per cent, respectively.</p> <p>In its Price Concentration Analysis working paper, the CC attempted to control for patient acuity, presumably in recognition of the significant impact this can have on the price charged for the treatment. However, no such attempt has been made in this analysis, highlighting a fundamental flaw in the CC's methodology.</p> <p>HCA's London premium</p> <p>An important assumption here is that the cost of providing treatment to self-pay patients and insured patients is the same.</p> <p>If one takes two <u>identical</u> patients, then it is correct to assume that the cost of providing treatment to a self-pay patient versus an insured patient is similar. However, it is implicit in the CC's assumption that the both sets of patients exhibit similar characteristics, whereas the two patient groups may exhibit different characteristics, with implications for the cost of treatment to each cohort. By way of example, private medical insurance tends to cover a narrower age group (e.g. because it is provided during the patient's working life or because insurance becomes prohibitively expensive at an elderly age), therefore it might be a reasonable assumption to expect a broader acuity mix for self-pay patients.</p>

²⁰ See paragraph 2.2, bullet entitled "Hospital operator characteristics".

²¹ See paragraph 3.28 and Annex 1 of HCA's response to the CC's Data Room Exercise and Price Concentration Analysis working paper.

Quality of care	National index / London index This measure does not have any adequate controls for quality for care. As explained above, prices charged for treatments will reflect quality differentials between providers, where "quality" can represent a number of different parameters. ²² Therefore, price differentials need to be understood in the context of, among other things, quality of service, quality of clinical environment and clinical outcomes achieved.
Data issues	HCA would request further information from the CC on the composition of each basket of common treatments. There may, for example, be issues with regards to whether the CC's proposed sample size is sufficient to conduct a robust statistical analysis for each index.

3. Assessing the "drivers" of price outcomes

- 3.1 HCA notes that it has been excluded from this segment of the CC's analysis as it does not have an extensive portfolio of hospitals across the UK.

4. Insurer buyer power

- 4.1 The CC proposes to construct an index comparing insured price outcomes across insurers, and a separate index to compare insured prices and self-pay patient prices.
- 4.2 Again the CC has elected not to disclose which treatments are included in each basket of treatments, without which HCA cannot properly comment on the CC's methodology. The need to include treatments offered by every hospital operator to specific insurers will confine the scope of treatments included. The basket of treatments will be further restricted when constructing the index based on treatments provided by a hospital operator to all insurers as well as to self-pay patients. It may be that the CC is considering only a very narrow subset out of the entire set of a hospital operator's episodes. As the CC has already acknowledged, if the proposed basket of treatments is too narrow, it may distort the CC's findings.²³
- 4.3 Note that features of the private healthcare market that can influence price outcomes (highlighted in paragraph 2.2 above) may also apply in this segment of the CC's analysis. For example, the quality of care provided to the patient will affect the price level of the specific treatment provided. Furthermore, the patient's specific circumstances and acuity level influence price. Indeed, the CC expressly acknowledges that price can be sensitive to the patient's medical condition,²⁴ however, it does not subsequently take any steps to control for this. In addition, the issue of retroactive rebates must also be borne in mind, as these can be a significant feature of the bargaining outcome between hospital operators and insurers that is not reflected in the price(s) contained in the specific treatment invoice. Furthermore, the treatment and cleaning of data may impact the CC's findings. In that regard, we note that the CC has excluded episodes that record multiple CCSD codes. It is unclear what effect this

²² By way of example, see paragraph 2.2, bullet entitled "Quality of care".

²³ Paragraph 6 of the CC's methodology paper.

²⁴ Paragraph 32(c) of the CC's methodology paper.

has had on the volume and of scope of treatments included and, in turn, the robustness of the CC's analysis.

- 4.4 The CC makes an assumption which it believes supports the co-mingling of inpatient and day-case pricing data in its prices indices. At paragraphs 32(a) of the CC's methodology paper, it notes that "*Hospital operators and insurers do not distinguish between inpatient and day-patient treatments in their price negotiations*".
- 4.5 This statement is not entirely correct. Whilst it is indeed the case that HCA and insurers tend to negotiate a general price uplift for the price of both inpatient and day-case prices – these uplifts are based on existing prices that were originally calibrated based on the type of treatment. This includes the type of medical stay required (inpatient, day-case or outpatient), complexity, the type of prosthesis or drugs involved in treating the patient and a host of other factors. The price of any new treatment introduced into the insurer / hospital operator bargaining framework would therefore distinguish between inpatient and day-case care. As a result, the composition of day-case and inpatient procedures included for each hospital operator may influence the price outcome measurement. This point again highlights the need for the CC to disclose the components of each basket of common treatments.