ANNEX 5

CRITICAL LOSS AND ITS RELEVANCE TO ASSESSING THE LOCAL COMPETITIVE EFFECTS

1. INTRODUCTION AND SUMMARY

1.1 A key flaw in the CC's local market analysis is that it has failed to take account of how the financial structure of running a hospital ultimately impacts on its incentive to increase volumes, and, in particular, the impact that the potential loss of even a small number of marginal patients drawn from outside the catchment modelled by the CC would have on the overall profitability of that hospital.

1.2 In this regard, critical loss analysis provides a framework for considering how many patients would need to be lost in order to render a price increase unprofitable (i.e. to fully constrain the hospital in question). Given the high fixed cost nature of running a hospital, Ramsay would only need to lose between [CONFIDENTIAL]% per cent of sales at the [CONFIDENTIAL] allegedly problematic hospitals.

1.3 It is implausible to suggest that these critical values would not be exceeded given that:

(a) the CC's local market analysis has specifically failed to consider the choices facing infra-marginal patients (e.g. the CC's catchment area specifically excludes the most distant 20 per cent of patients; the loss of [CONFIDENTIAL] would be sufficient to constrain the hospital in question), and the extent to which Ramsay's patients are located in catchment areas that overlap with those of rival hospitals and thereby those patients face a range of choices between different facilities; and

(b) private inpatient treatment represents only a relatively small proportion of the treatment undertaken at the [CONFIDENTIAL] Ramsay hospitals of concern. Any hypothetical change to the competitive offering would result in a loss of patients across all the different types of treatment provided.

1.4 Accordingly, critical loss analysis helps to contextualise the magnitude of the loss in patient volumes required to constrain the [CONFIDENTIAL] allegedly problematic hospitals. It further demonstrates that the CC's local market analysis has materially overstated the competition concerns that arise given that, as a result of the CC's focus on narrow catchment areas, the extent to which hospitals compete to win these infra-marginal patients has been ignored.

2. CRITICAL LOSS ANALYSIS

2.1 The CC has accepted in Paragraph 7 of the PFs that "many costs of running a hospital do not vary according to the volumes of admissions or patients. Land, buildings, equipment and labour in particular represent substantial fixed cost to private hospital operators". However, the CC has manifestly failed to consider in its local market assessment how the financial structure of running a hospital ultimately impacts on its incentive to increase volumes, and how the loss of even a small number of patients can have a significant bearing on the overall financial viability of that hospital.

2.2 In businesses with a high proportion of fixed costs (such as private hospitals), it is extremely important to drive volumes in order to provide a contribution towards those fixed costs and increase efficiency. Conversely, this also means that the loss of only a small proportion of volumes can have a very material impact on the profitability and overall financial viability of the business, as those fixed costs must still be covered despite the drop in volumes.
2.3 This is confirmed by even the simplest form of critical loss analysis (which measures the volume of sales that need to be lost to render a hypothetical price increase unprofitable). Based on the gross margin at the [CONFIDENTIAL] Ramsay hospitals (taken from its profit and loss accounts for 2011 and submitted in response to the Financial Questionnaire), the Appendix to this Annex shows that Ramsay only needs to lose between [CONFIDENTIAL] per cent of sales at the [CONFIDENTIAL] allegedly problematic hospitals in order to render a hypothetical 5 per cent price increase unprofitable (i.e. to sufficiently constrain Ramsay's behaviour at those hospitals).

2.4 This is particularly relevant to two key aspects of the CC's local market assessment:

(a) Firstly, in relation to the CC's overly-narrow approach to assessing the catchment areas and geographic market definition for the [CONFIDENTIAL] allegedly problematic hospitals, which means that it has failed to consider the options and choices of *infra-marginal patients* who are the most relevant to any competition assessment; and

(b) Secondly, in relation to the mix of treatment that Ramsay carries out at those hospitals (as private inpatient treatment, which is the focus of the CC's theory of harm, only represents a small proportion of the range of overall treatment that is carried out at the [CONFIDENTIAL] Ramsay hospitals of concern);

(a) Overlaps in catchment areas – *infra-marginal patients*

2.5 As set out in Annex 1, the CC's local market analysis has resulted in some overly-narrow catchment areas being defined in relation to the [CONFIDENTIAL] allegedly problematic Ramsay hospitals. In particular, the maps in Annex 1 [CONFIDENTIAL] clearly show that there are significant clusters of Ramsay's self-pay patients located on the fringes and outside of the CC's chosen catchment area for each hospital.

2.6 By excluding large numbers of patients that travel from further afield (i.e. from outside the limited catchment area modelled by the CC), and those that would travel further afield if there was an increase in price (or reduction in quality or some other parameter of competition), the CC's analysis has failed to take into account the importance (e.g. in terms of providing a contribution to the fixed costs of operating a private hospital) of those patients. The fact that Ramsay's patients are drawn from a far greater distance than has been considered by the CC is also particularly pertinent in light of the critical loss values set out in the Appendix to this Annex.

2.7 As mentioned above, the critical loss analysis shows that Ramsay only needs to lose a relatively small proportion of patients (i.e. between [CONFIDENTIAL] per cent for the [CONFIDENTIAL] problematic Ramsay hospitals) in order for a 5 per cent price increase to be unprofitable (i.e. for the hospital to be fully constrained). Accordingly, it is these *infra-marginal customers* (e.g. those located around the fringes, in the overlapping catchment areas, and outside the catchment areas) that are of particular relevance to the local market analysis and the extent to which Ramsay is constrained by neighbouring facilities.

2.8 In particular, as the CC's catchment area analysis only focuses on the closest 80 per cent of patients, it specifically excludes the 20 per cent of patients that are of particular relevance to the competition assessment. This is because the 20 per cent of patients that have been excluded are the most distant from the Ramsay facility and therefore more likely to be located closer to another rival facility. On the basis of the critical values reported in the Appendix, if any of the [CONFIDENTIAL] Ramsay hospitals of concern lost [CONFIDENTIAL] of those patients located outside the CC's catchment area (i.e. [CONFIDENTIAL] of those patients that the CC has totally failed to consider), this would exceed the critical value and be sufficient to constrain the hospital in question.
2.9 Moreover, it is also clear from the maps in Confidential Annex 3 that the vast majority of patients located within the catchment areas of the [CONFIDENTIAL] Ramsay hospitals of concern overlap with the catchment areas for other rival facilities. This means that, even for those patients located within the CC's narrowly defined catchment areas, the vast majority of Ramsay's patients have a range of options regarding choice of provider. This point is even clearer when regard is had to the proven propensity of self-pay patients to seek out alternatives from within a 45-minute drive-time. It is, therefore, simply implausible that a critical loss value of around [CONFIDENTIAL] per cent would not be exceeded if any of the [CONFIDENTIAL] Ramsay hospitals sought to increase prices or take steps to adversely affect the competitive offering.

2.10 Accordingly, by failing to consider the dispersion of Ramsay's patients and, in particular, (i) those patients located around the fringes and outside the CC's catchment areas; and (ii) the extent to which the catchment areas of the Ramsay hospital overlap with the catchment areas of other rival hospitals, the CC has manifestly failed to consider the range of alternatives facing a significant proportion of Ramsay's patients. By focussing on 'average' patients rather than the choices and options of the infra-marginal patients, the CC has materially overstated the local market concerns that arise.

(b) Range of treatments provided

2.11 The CC's focus only on the private inpatient offering of hospitals ignores the constraints that exist from any potential adjustment to the competitive offering (e.g. through a reduction in quality, standards or investment, for example) across the full range of different treatment types that are provided at those facilities.

2.12 For example, a reduction in investment in a hospital (e.g. in new theatres), or a reduction in quality (e.g. through less investment in human capital) would have a negative impact across all the different types of treatment undertaken at those hospitals. As is shown by the critical loss values in the Appendix, the loss of [CONFIDENTIAL] volume of patients across all the different treatment types is sufficient to constrain the hospital in question.

2.13 As mentioned on numerous occasions to the CC, and shown in the fifth column of the Appendix, a very large proportion of Ramsay's work relates to NHS-funded treatment (ranging from [CONFIDENTIAL] per cent to [CONFIDENTIAL] per cent of admissions at the [CONFIDENTIAL] Ramsay hospitals). It is the increase in NHS volumes which has been the primary driver of the growth in Ramsay's business. [CONFIDENTIAL] fully constrain the [CONFIDENTIAL] Ramsay hospitals of concern.

2.14 In addition, an increasing proportion of private treatment is carried out on a daycase basis (of between [CONFIDENTIAL] per cent (at [CONFIDENTIAL]) and per cent (at [CONFIDENTIAL]) of all admissions at the [CONFIDENTIAL] Ramsay hospitals). The CC accepts in the PFs that there are many more competitors for daycase treatment including treatment centres, clinics and specialist daycase centres, which have been largely excluded from the CC's local market assessment. Accordingly, any attempt to adjust the competitive offering at the [CONFIDENTIAL] allegedly problematic Ramsay facilities is also likely to result in a significant loss of volumes in relation to daycase treatment, for which the CC accepts that there is significant competition.

2.15 Accordingly, the CC's focus on private inpatient treatment (which represents between [CONFIDENTIAL] per cent of admissions at the [CONFIDENTIAL] allegedly problematic Ramsay hospitals) ignores the constraints that apply to those facilities across all the different types of treatment provided as a result of a hypothetical change in the competitive offering.

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1 Paragraph 6.4 of the PFs refers to the lower concentration for outpatient services.
## APPENDIX

### CRITICAL LOSS VALUES COMPARED TO PROPORTION OF PRIVATE TREATMENT WORK UNDERTAKEN

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Critical Loss Value</th>
<th>Private inpatient admissions as a proportion of total admissions</th>
<th>Private daycase admissions as a proportion of total admissions</th>
<th>NHS admissions as a proportion of total admissions</th>
<th>Percentage of catchment area overlapped</th>
</tr>
</thead>
<tbody>
<tr>
<td>[CONFIDENTIAL]</td>
<td>2011-2012</td>
<td>Year ending June 2012</td>
<td>Year ending June 2012</td>
<td>Year ending June 2012</td>
<td>See Confidential Annex 3</td>
</tr>
</tbody>
</table>

[CONFIDENTIAL]