NICE THA Assessment Comments

1) According to the revision rates shown in table 6 and 7 in the overview and tables 67 and 68 (pages 213 and 214) in the assessment report a 10 year 5% revision rate benchmark means uncemented MoP and CoC are OK in men and women over 65 years, but not in men under 65 years and only uncemented MoP, not CoC, is OK in women under 65 years. This goes against conventional wisdom that uncemented hip implants do better in younger, more active patients and that ceramic on ceramic bearings should be used in this patient demographic because of superior wear rates.
    - Based on this and an acknowledgement that revision rates will be higher in younger patients, because of their higher activity levels and the fact that they are more likely to be fit enough (and live long enough) to have a revision should there be a 15 year revision benchmark for patients under 65 of 7%, instead of 5% at 10 years, with progression towards this benchmark as follows:

Year	Revision Rate
1	1.4%
2	2.1%
3	2.6%
4	3.0%
5	3.4%
6	3.8%
7	4.2%
8	4.6%
9	5.1%
10	5.5%
11	5.9%
12	6.2%
13	6.5%
14	6.8%
15	7.0%

    - Based on data in the NJR, progression towards a 5% revision rate at 10 years, for patients over 65, should also be non-linear:

Year	Revision Rate
1	1.4%
2	2.0%
3	2.5%
4	3.0%
5	3.4%
6	3.8%
7	4.1%
8	4.4%
9	4.7%
10	5.0%

2) The price data provided by NHSSC significantly overstates the prices actually paid for all the THR implant categories. Perhaps more importantly the differences between cemented and uncemented prices are overstated. Table 11 in the overview shows uncemented MoP at almost x 2 the price of cemented MoP, with the difference being £1,458.22. We know that in reality the average price of an uncemented hip is around 30% - 40% higher than a cemented hip, and the price difference is more likely to be in the region of £400.
    - There is a very large margin of error between the price and **price difference** assumptions made in the assessment and the reality of in-market pricing and price differences. This is bound to have a significant impact on the cost effectiveness model as it is acknowledged in the assessment that the difference in QALYs are negligible between THR categories A to E and that probabilistic analyses of costs and effectiveness of all categories overlapped markedly.

3) The assessment concludes that cemented CoP dominates the other THR categories in terms of clinical and cost effectiveness. However, there is no uncemented CoP category included. The "ceramic bearing" comparison is therefore between cemented CoP and uncemented CoC. In table 11, the price difference between an uncemented CoC and a cemented CoP is £1,900, whereas in reality it is in the region of £500 - £600.
    - The failure to include uncemented ceramic on poly is a significant flaw. It has the lowest revision rate of the bearing surface combinations used with uncemented hips and the price difference between a cemented ceramic on poly hip and an uncemented hip with this bearing surface combination will be much smaller than the difference between uncemented CoC and cemented ceramic on poly. Would cemented CoP still dominate if the differences in costs and revision rates were significantly less