



# Positive Early Outcomes for the Persona Total Knee System

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## Introduction

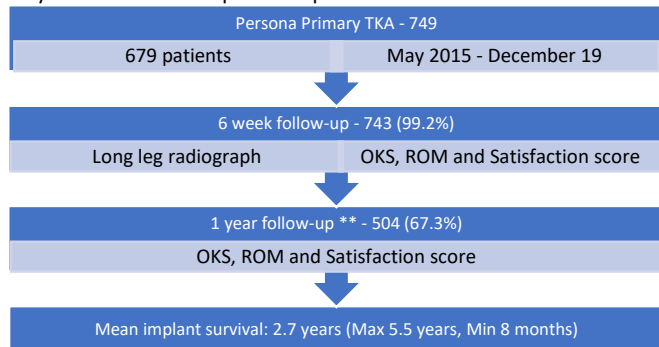
Knee osteoarthritis is a major cause of morbidity worldwide. Total knee arthroplasty is a well-established procedure to remedy the associated morbidity and improve function. In 2019 103,000 TKA were performed in the UK<sup>1</sup> and this is projected to increase. However overall dissatisfaction remains about 15-20%.<sup>2</sup>

Persona® Personalized Knee System is an evolution of Nex-Gen implant. It is a primary TKA featuring asymmetric anatomically shaped tibial tray and femur available in 1mm size increments to avoid compromise between bone coverage and rotation.

We aimed to obtain short term follow up data including oxford knee score, range of motion, radiographic alignment, overall satisfaction and survivorship.

## Methods

- ❖ Two consultant surgeons initial 749 Persona implants were followed up at 6 weeks and 1 year. Data as of August 2020.
- ❖ Long leg radiographs analysed in PACS, SPSS used for statistics.
- \*\* Departmental routine follow up program changed to 6 weeks only as of March 2019 provided patients had no issues.



## Results

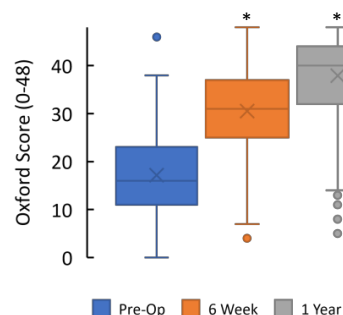


Figure 1. Oxford Knee Scores significantly improved from 17.2 pre-operatively to 30.5 at 6 weeks and 37.9 at 1 year (\* p<0.01).

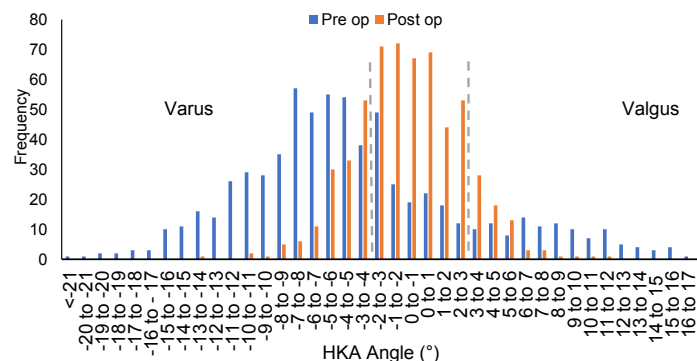


Figure 2. Post-operative Hip-Knee-Ankle angle (HKA) analysis showed an improvement in the number of patients who achieved neutral alignment i.e. +/- 3° (represented by dashed lines) from 21% pre-op to 78% (p<0.005).

## Conclusions

- ❖ Oxford Knee Scores significantly improved at 6 weeks and 1 year.
- ❖ Neutral alignment improved from 21% pre-op to 78% post-op.
- ❖ Range Of Movement continued to improve from 95.2° at 6 weeks to 104.6° at 1 year.
- ❖ Satisfaction was 94.9% at 1 year.
- ❖ Survival 99.5% (mean 2.7 years).

These results compare favourably when looking at reported outcomes of existing implants.

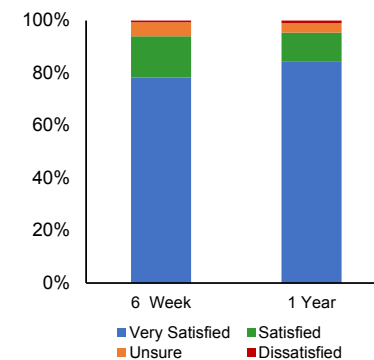


Figure 3 Post Operative Satisfaction improved from 93.9% to 94.9% between 6 weeks and 1 year.

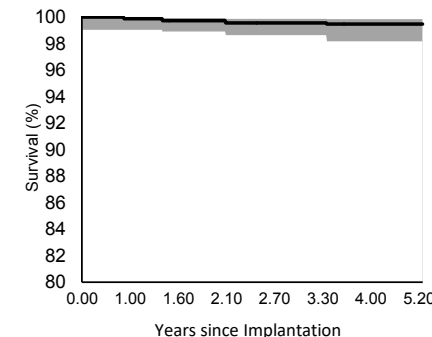


Figure 4. Kaplan-Meier survival curve. At 5.5 years, implant survival was 99.5% with four revisions occurring during this period.

### References

- 1) National Joint registry. 17th Annual Report 2020. [https://reports.njrcentre.org.uk/Portals/0/PDFdownloads/NJR\\_17th\\_Annual\\_Report\\_2020.pdf](https://reports.njrcentre.org.uk/Portals/0/PDFdownloads/NJR_17th_Annual_Report_2020.pdf) (date last accessed February 2021).
- 2) Gunaratne R, Pratt DN, Banda J, Fick DP, Khan RJK, Robertson BW. Patient Dissatisfaction Following Total Knee Arthroplasty: A Systematic Review of the Literature. J. Arthroplasty 2017

\*Conflict of Interest: Mr Clarke has received research funding from Zimmer Biomet