North Manchester General Hospital

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How has the Covid-19 pandemic affected the baseline physical ability of patients presenting to hospital with hip fracture?

Background

It had been noted anecdotally within our Physiotherapy team that patients with hip fracture have presented with a gradually more dependent level of ability throughout the Covid-19 pandemic.

In 2021, Age UK published findings describing that older people were subjectively reporting increased difficulty in completing basic mobility tasks as a direct effect of the pandemic.

Our study attempted to quantify these subjective feelings through use of the Cumulative Ambulatory Score (CAS) – a valid measure for evaluation of levels of physical independence in patients with hip fracture.

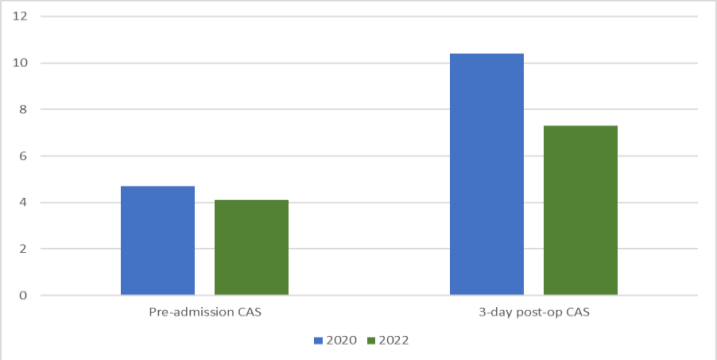
A single CAS can be recorded (scored out of six) to assess patients' pre-admission baseline mobility level.

Furthermore, CAS can be recorded cumulatively for the first three days post-surgery (scored out of eighteen) – whereby a score of equal to/greater than ten indicates a 99% survival rate at one month, and a 93% chance that the patient will achieve discharge home.

Results

- Average pre-admission CAS reduced from 4.7 in 2020, to 4.1 in 2022 (A change of more than 0.2 indicates a real change in basic mobility)

- Average 3-day post-surgery CAS reduced from 10.4 in 2020, to 7.3 in 2022 (A change of more than 0.55 indicates a real change in basic mobility)



Methods

CAS for the first three days post-surgery, and as a pre-admission baseline score, was calculated for two groups of 50 patients admitted with hip fracture to our hospital.

The initial group studied was from the pre-pandemic timescale of January/February 2020.

The comparison group was from a later phase of the pandemic - January/February2022.

Conclusions/Implications

The results above indicate a reduction in physical ability of patients presenting with hip fracture later in the pandemic.

It is worth noting that the average score for patients in the group from later in the pandemic is now below the threshold of equal to/greater than ten on the three–day post-operative CAS; potentially therefore having an affect upon their survival rates and chance of discharge home.

References

1) Age UK (2020) – The impact of COVID-19 to date on older people's mental and physical health

2) Aagesen M, Kristensen MT and Vinther A (2020) - The cumulated ambulation score is superior to the new mobility score and the de Morton Mobility Index in predicting discharge destination of patients admitted to an acute geriatric ward; a 1-year cohort study of 491 patients

3) Kristensen MT, Andersen L, Bech-Jensen R et. Al. (2009) - High intertester reliability of the Cumulated Ambulation Score for the evaluation of basic mobility in patients with hip fracture

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