**Data from HES**

Care home records are known to be of poor quality in the monitoring of health care contacts made outside of the care home itself. To measure secondary care, including inpatient, outpatient and A&E, Hospital episode statistics (HES) were returned by NHS Digital, identified using NHS Number which was concealed to analysts.

Prior to analysis, we conducted plausibility checks on HES data, comparing participant information recorded on eCRF.

We matched records using month of birth and year of birth (full date of birth was concealed).

* Where month and year of birth did not match, we ascertained it was unlikely the HES data linked to the participant, and the NHS Number was probably incorrect. Therefore, we excluded these participants in HES analysis
* Where year of birth did not match, if the mismatch was for one digit (e.g. 1927 instead of 1937; 1941 instead of 1940) we ascertained this was probably a minor typo in eCRF, and the HES data linked to the participant.
* If more than one digit was incorrect (e.g. 1932 instead of 1917), we excluded these participants in HES analysis
* We ignored mismatch in month if the birth year matched.

Assessing baseline differences based on the 3 months before randomisation, we censored All HES datasets (Admitted, Outpatients and A&E) to 90days before randomisation (“preStudy”) and 360 days after randomisation (“duringStudy”)

For inpatient stays, if numerous episodes were listed for a single hospital stay, only the final episode was costed. This involved excluding records where \*\* Discharge destination = 98; Discharge date = 01jan1801 (1,890 observations deleted). The combined day case/ ordinary elective spell tariff was applied to all admissions unless the episode contains a diagnosis which is ambulatory care sensitive (as recorded in HES), in which case the non-elective spell tariff was applied.

A small number of reported HRGs were not linked to National Tariff 201718. For these, we applied the mean value:

HRG descriptions were available for mapped records, which included a brief description of principle reason for admission. We identified key falls-related phrases and created dummy variables where these appeared.

* gen fractureHRG = strpos( HRGname, "Fracture") > 0
* gen fortraumaHRG = strpos( HRGname, "for Trauma") > 0
* gen tendancyfallHRG = strpos( HRGname, "Tendency to Fall,") > 0
* gen anyfallsHRG = fracture + fortrauma + tendancyfall
* gen hipHRG = strpos( HRGname, "Hip") > 0
* gen armHRG = strpos( HRGname, "Arm") > 0

\*\*\* saved output in "HES APC Admission details inc Falls.txt"

n=1296 costed stays within observation period

n=669 participants with at least one hospital admission in observation period

Outpatient attendances were mapped to the National Tariff based on Treatment Specialty (variable “tretspef”). All attendances were classed as single professional. Unit costs were attributed to either first attendance (35%, mean cost £xxx) or follow-up (65%, mean costs xxx). Where Treatment Specialty was not available, mean imputation was applied based on all other available costs.