Electronic Supplementary Material (ESM) 3 – OPERAM trial results in relation to substudy

In this Supplementary Information, differences in results provided in the main OPERAM trial paper [1] and this substudy will be elaborated. Different choices were made in the substudy to define the study population and to define the term 'recommendations' compared to the OPERAM main trial.

OPERAM trial

In the OPERAM trial paper, intervention patients were eligible for analysis when they 'received the allocated intervention' (n=916, Fig 1, Table 2) [1] which was defined by:

1) Having received an in-hospital pharmacotherapy (=first) analysis prior to discussion with the attending hospital physician and the patient
   AND/OR
2) Having received a second pharmacotherapy analysis to generate a discharge report for the general practitioner (GP)

Substudy

In this substudy, the aim was to determine the frequency of CDSS generated STOPP/START signals and subsequent acceptance by a pharmacotherapy team for in-hospital use, prior to discussion with the attending hospital physician and patient. Therefore, patients (n=826) from the OPERAM intervention group were selected for whom:

1) An in-hospital pharmacotherapy (=first) analysis was performed prior to discussion with the attending hospital physician and the patient
   AND
2) Data of the in-hospital pharmacotherapy analysis was available in the CDSS

Figure 1 in this Supplementary Information shows a visual presentation of the definition for the term 'recommendations' used in de OPERAM trial paper and this substudy in relation to the OPERAM intervention.

Reference

[1] Blum MR, Sallevelt BTGM, Spinewine A, Mahony DO, Feller M, Baumgartner C, et al. Optimizing Therapy to Prevent Avoidable Hospital Admissions in Multimorbid Older Adults (OPERAM): cluster randomised controlled trial. BMJ 2021;374:n1585. https://doi.org/10.1136/bmj.n1585.

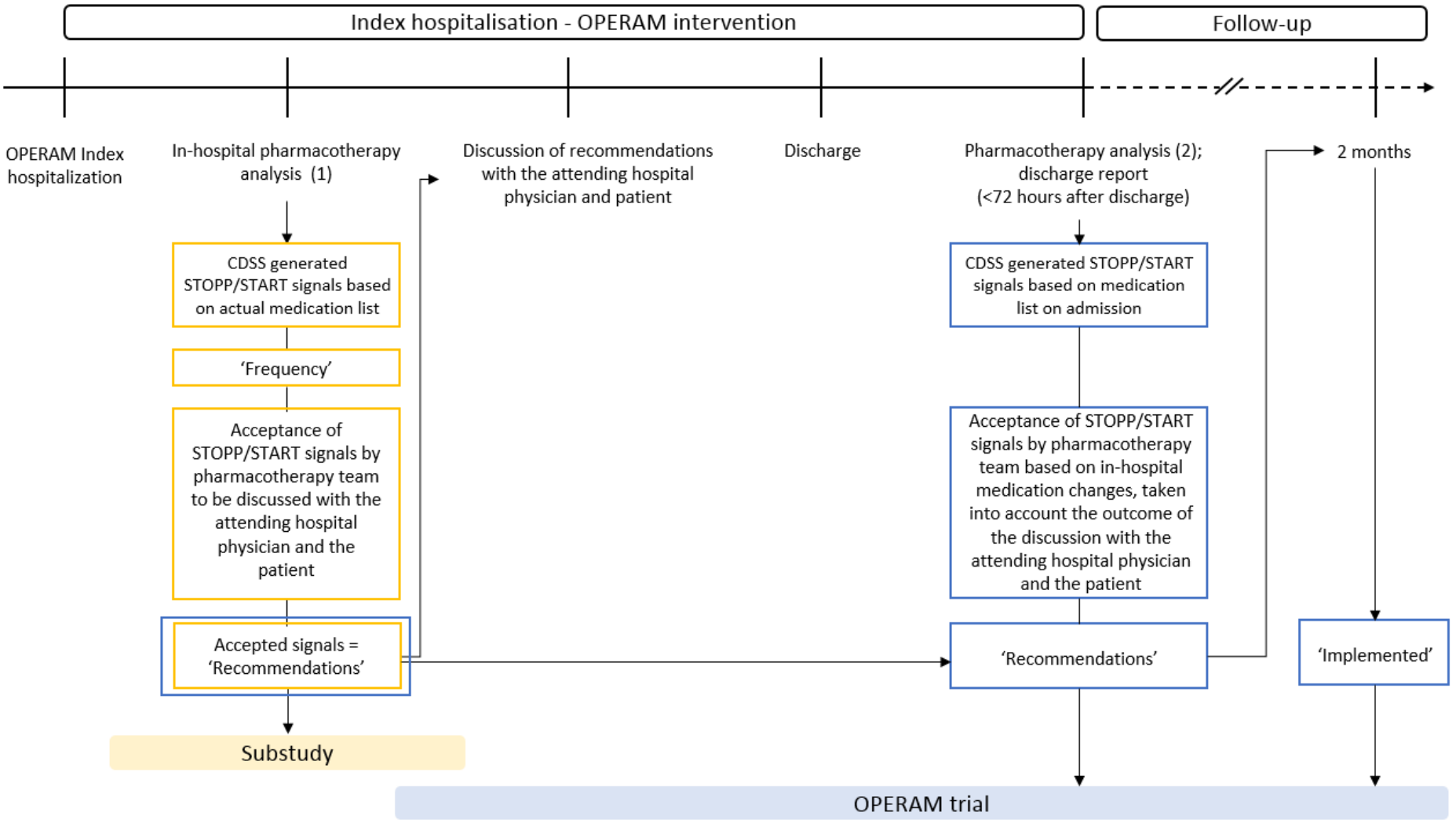

Figure 1. Visual presentation of the definition 'recommendations' in de main OPERAM trial paper and this substudy in relation to the OPERAM intervention.
In the OPERAM trial (Table 3) [1] 'recommendations' included both accepted STOPP/START signals from the in-hospital pharmacotherapy analysis and the second analysis for the discharge report sent to the GP (n=2331). Duplicates were removed as well as conflicting recommendations (e.g. both a recommendation to initiate and to discontinue a drug), which could occur due to changes in medication and conditions in the timeframe between first and second pharmacotherapy analysis. Dose reductions based on STOPP criteria were excluded from analysis. Frequencies of CDSS-generated signals are not provided in the main OPERAM trial paper.
In this substudy, 'recommendations' included only accepted STOPP/START signals from the in-hospital pharmacotherapy analysis (n=1990).

This electronic supplementary material relates to: Bastiaan TGM Sallevelt, Corlina JA Huibers, Jody MJ Op Heij et al. Frequency and acceptance of clinical decision support system generated STOPP/START signals for hospitalised older patients with polypharmacy and multimorbidity