Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

BMJ Qual Saf

SUPPLEMENTS S3 – QUALITATIVE DATA ANALYSIS

The Framework approach is a systematic approach for categorising and organising the data and involves familiarisation with the interviews, developing a thematic framework, coding, charting the data into the framework and interpreting the data.[34,35] Firstly, two researchers (ST and CP, combining pharmacy and nursing /public health perspectives) familiarised themselves with a sub-set of interviews by reading and re-reading the transcripts and field notes to identify themes. Themes were compared and discussed between the two researchers to develop an initial coding framework. Codes were partly pre-defined by the study objectives/interview schedule but mainly arose inductively from the data to dictate themes and categories. Subsequently, the coding framework was applied to the next set of transcripts. To minimise subjectivity, the first 15 interviews from Belgium were coded concurrently by ST and CP. Codes applied for the first 15 interviews were compared and discussed until consensus to refine the coding framework. The coding framework contained definitions for application of each code. After analysis of a first set of interviews, the initial coding framework and illustrative quotes were discussed within the research team, which helped to identify overlap between themes, themes that should be separated and to refine organisation of themes and categories into the coding framework. Next, the Swiss interviews were coded independently by ST and BM (who conducted the Swiss interviews and who has a background in psychology). Agreement on coding across all themes for a set of 3 transcripts was satisfactory, with Cohen's κ scores for of 0.83 and 0.84 between ST and CP and between ST and BM respectively. ST continued with coding independently the interviews from the Netherlands and Ireland, with regular cross-checks with the interviewers if needed. The coding framework was constantly refined during further analysis until no new codes emerged. Data saturation, defined as the point where themes and categories become repetitive between participants, was reached after analysis of the first 15 Belgian interviews.[75] The coding framework did not change considerably following analysis of subsequent interviews from the other sites. Throughout the coding, the researchers created analytical memo's to write down, impressions, ideas and early interpretation of the data. When all data were coded and summarised, the coding framework was reviewed to make connections within and between participants and themes. Barriers and facilitators were identified and linked to the major themes. Interpretation of the findings was supported by the use of the analytical memos, looking for deviant cases, going back to the literature, discussion

within the research team and feedback from the interviewers from all sites on the preliminary results. The qualitative results were validated by sending nine Belgian OPERAM participants a summary of the findings. Patients were asked to what extent the findings corresponded to their experience and to report any disagreement. None disagreed with the themes reported and some patients stressed themes that they considered as most important.

<u>Language issues</u>

Interviews were conducted in four different languages. Transcriptions were performed by local researchers in each site in the native language to avoid that nuances in the data were lost due to translation. The researchers analysing the data had good command of English, French, Dutch and German to reduce the chance of linguistic misinterpretation. Cross-checks with the interviewers were performed in case of uncertainty about meaning. The coding framework was developed in English. A selection of quotes (Table 3) from the Belgian, Swiss and Dutch study participants were translated from French, Swiss German and Dutch into English by a translation agency.