



Association between Quality of Interactions Schedule ratings and care experiences of people with a dementia in general hospital settings: a validation study

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Abstract

Introduction: Establishing methods to evaluate interactions between hospital staff and patients with a dementia is vital to inform care delivery. This study aimed to assess the validity of Quality of Interactions Schedule (QuIS) ratings in relation to the care experiences of people with a dementia in a general hospital setting.

Methods: Four hundred and ninety face-to-face interactions between staff and patients with a dementia ($n = 107$) on six medicine for older people wards in a UK National Health Service hospital were observed and rated using QuIS and the Psychological Well-Being in Cognitively Impaired Persons (PWB-CIP) tool. We also invited patient ratings for longer interactions ($n = 217$). Analyses explored associations between QuIS ratings, PWB-CIP ratings and patient ratings.

Results: When QuIS was rated negative, the mean researcher-rated patient psychological well-being was lower ($PWB = 7.9$ out of maximum score of 10) than when QuIS was non-negative ($PWB = 8.8$, $p = 0.036$). Negative QuIS ratings were associated with negative ratings on seven out of ten individual PWB-CIP items. When QuIS was rated negative, the associated patient rating was 4% less likely to be 'happy'. The patient was also 4% more likely to rate the interaction as 'kind'. Patients struggled to participate in care ratings.

Conclusions: Some patients found responding to researcher questions difficult or not relevant, reflecting the need for development of more suitable methods in this field. Our findings of an association between lower quality QuIS-rated interactions and lower psychological well-being lend support to the use of QuIS with patient populations that include people with a dementia.

KEYWORDS

dementia, hospitals, patient satisfaction, process assessment (health care), quality of health care, validation study

1 | INTRODUCTION

People with a dementia occupy at least a quarter of acute hospital beds in the United Kingdom. They are also likely to stay in hospital twice as long as other patients over the age of 65.¹ A lack of understanding amongst healthcare staff of how to care for people with a dementia is likely to lead to poorer standards of care resulting in the rapid decline in health of vulnerable patients.² Whilst there is an increased interest in the idea that people with a dementia could hold a more important role in shaping healthcare practices,^{3,4} there is little evidence on how to effectively reflect the experiences of people with a dementia when developing, planning or evaluating healthcare services. One way to address this gap is ensuring the representation of patient experiences in the methods used to evaluate care.

While most people with mild to moderate dementia can share their experiences relating to care with insight and clarity, research to evaluate care often relies on proxy reports, observations and judgement by informal and professional caregivers.⁵⁻⁸ Survey methods are a relatively inexpensive way of collecting large data-sets quickly but can be problematic for people with a dementia who may, depending on their individual impairments, lack the ability needed to share their views through a written survey.^{9,10} Rather than relying on direct patient reports or ratings through interview or written survey, observer-based methods may be more inclusive because, beyond establishing consent to take part, participation is not reliant on cognitive ability. However we understand little about the relationship between observer ratings and patient experiences of care.⁹

The Quality of Interaction Schedule (QuIS) was originally developed to measure the impact of service change on residents with a dementia in long term care settings and guidance on its use in acute care settings has been developed more recently.¹¹⁻¹³ Individual interactions between patients and hospital staff are directly observed by researchers, and each interaction is rated as either positive social, positive care, neutral, negative protective, or negative restrictive (Table 1). Quality of Interactions Schedule (QuIS) is one of the few observer-based instruments for rating quality of care for older people and this relatively simple scale involving five mutually exclusive categories supports its selection as an outcome measure requiring comparably little researcher training to use and generating data that are straightforward to analyse and communicate (compared to say dementia care mapping).^{14,15} When compared with dementia care mapping, QuIS also compares favourably with a growing evidence base supporting its use as a valid and reliable research instrument. Various studies have shown acceptable levels of inter-rater reliability and sensitivity to service change in acute care and long term care.^{11-14,16-19} Positive QuIS ratings have been associated with (observed) positive affect of people living with a dementia in long-term care settings.^{11,17,20} Bridges et al. reported negative QuIS ratings decreased and positive QuIS ratings increased in relation to the degree of person-centred care in general hospital settings. However, the patient sample included few with cognitive impairment and the findings do not offer insight into the relationship between QuIS ratings and patient experiences.²¹ McLean et al. reported 79%

Key Points

- Our findings confirm the relevance of Quality of Interactions Schedule (QuIS) for measuring the quality of care of people with a dementia in general hospital settings.
- Our findings of an association between lower quality QuIS-rated interactions and lower psychological well-being indicate that QuIS ratings are valid in relation to patient experiences of care. They also lend support to the use of QuIS with patient populations that include people with a dementia.

agreement (weighted kappa 0.40: $p < 0.001$) between adult general hospital patient direct ratings of interactions and concurrent QuIS ratings, but the sample size was small ($n = 17$ patients, 185 interactions) and did not include people with cognitive impairment.¹²

The impact of dementia on individual cognition, the lack of dementia-friendly hospital environments plus the social impact of dementia, including altered behaviour by staff towards people with a dementia, mean that hospital experiences may be different for this group of people, with research to date suggesting that they are more likely to have negative experiences.²²⁻²⁴ With this in mind, it is important that methods used to evaluate care are able to accommodate the perspectives of people with a dementia when dementia features in the patient population.²⁵ Because it is based on observer ratings rather than patient self-report, QuIS holds promise as a more inclusive outcome measure in evaluations of services and service improvements. However, its validity in relation to the care experiences of people with a dementia in receipt of inpatient general hospital care has yet to be established. The study reported here sets out to address that gap.

2 | METHODS

This study aimed to assess the validity of QuIS ratings in relation to the care experiences of people with a dementia in a general hospital setting. In addition to inviting patient ratings, non-participant observers rated observed staff and patient behaviours using structured instruments. We compared QuIS ratings with independent researcher ratings of patient Psychological Well-Being (PWB) and patient ratings of the same interaction. The researcher who approached patients for a patient rating kept a written record of their impressions of whether the questions being asked were meaningful to patients, if the images were easy to use by patients, and whether or not patients looked at the images when shown.

The research took place on six medicine for older people inpatient wards in a UK National Health Service hospital between September and November 2019. Ethical approval for the study was

TABLE 1 Quality of Interaction Schedule (QuIS) categories

QuIS Category	QuIS category definitions	
	Dean et al. (1993)	Additional acute care guidance (developed as reported in McLean et al. 2017)
Positive social	Interaction Principally involving 'good, constructive, beneficial' conversation and companionship	Interactions, which may be expected to make the service user feel valued, cared about or respected as a person. This is achieved through: <ul style="list-style-type: none"> • Polite, friendly and respectful interactions in which any element is: Casual/informal and relating to 'everyday' social topics (e.g. family; sport; weather; TV programmes) or • Responding to concerns/interests/topics introduced by the service user
Positive care	Interactions during the appropriate delivery of physical care.	Interactions, which may be expected to make the service user feel safe, secure, cared for or informed as a patient. This is achieved through polite, professional, respectful or good humoured interactions in which the topic is largely determined by staff and restricted to issues of care delivery (E.g., 'your discharge', 'your wash', 'your medication' and 'your surgery').
Neutral	Brief, indifferent interactions not meeting the definitions of the other categories.	Interactions which would not be expected to impact on the feelings of the service user, which they would be indifferent to or which they may barely notice. Interactions with no positive or negative aspects.
Negative protective	Providing care, keeping safe or removing from danger, but in a restrictive manner, without explanation or reassurance: In a way, which disregards dignity or fails to demonstrate respect for the individual.	Interactions that may be expected to make the service user feel rushed, misunderstood, frustrated or poorly informed as a patient. Such interactions fail to fully maintain dignity or demonstrate respect due to the focus of staff on doing their 'work'. Staff may appear rushed or task orientated.
Negative restrictive	Interactions that oppose or resist people's freedom of action without good reason, or which ignore them as a person.	Interactions which may be expected to leave the service user feeling ignored, devalued or humiliated as a person. Such interactions may be rude, abusive or controlling and pay no regard to the perspective of the patient. Patient's expressed needs/preferences are ignored or denied and staff may be authoritative, controlling, rude or angry.

Note: Adapted from Barker et al. (2016) with the authors' permission.

granted by the Social Care Research Ethics Committee 14/IEC08/1018.

2.1 | Measures

QuIS ratings were undertaken according to the acute care guidance and associated protocol developed by McLean et al.¹² Each observed interaction between patients and staff was given one of five ratings by trained researchers (Table 1). Patient PWB during each interaction was assessed using an adapted PWB in Cognitively Impaired Persons (PWB-CIP) scale, an instrument based on observable resident/patient behaviours and affective states to measure quality of life related to PWB.²⁶ The instrument was developed for use over a whole observation session rather than for individual interactions, and so we adapted it for study purposes by scoring whether or not each behaviour was observed during an interaction (rather than scoring

frequency of each behaviour over a session) and removing one item: 'Involved in single activity > 5 min'. This reduced the measure to a 10 item-scale measuring positive and negative affective states and engagement behaviours. PWB-CIP enables multiple behaviours to be observed and rated during a single observation session or, for the purposes of this study, a single interaction. PWB-CIP has previously shown reliability and validity when used across care settings, supporting the use of the instrument as a measure of PWB.²⁶

The PWB-CIP tool was selected for use in this study because it provides insight into patient experiences and responses to interactions and is also observer-based, offering the potential for concurrent data collection with QuIS. The similarities in measurement enable a comparison between the ratings collected by both instruments.

A patient rating tool was developed for this study in consultation with people with a dementia and their carers who attended a support group local to the research team. They were invited to take part in

either an individual or joint interview and asked to talk about different ways in which we could ask people with a dementia about their experiences of interactions with hospital staff. They were told that each participating patient would be asked how they feel about their hospital care and given examples of symbols that could be used to provide a discreet response, pointing to the symbol rather than verbalising a response. They were asked whether they thought that the symbols were useful or whether something else would be more suitable. Thirteen participants (seven carers and six people with a dementia) took part in interviews. Two interviews were one-to-one (with carers), four were dyadic (each with one person with a dementia and one carer) and one was triadic (one carer and two people with a dementia). By combining the opinions given by both carers and people with a dementia, a tool was designed which asked patients two questions and provided two symbols with assistive words as a way of providing a self-report response.

The first question was 'how did that make you feel?' and was accompanied with two separate images, one a thumbs-up image with the assistive word 'happy' positioned underneath the symbol. The other, a thumbs-down image with the assistive words 'not happy' positioned underneath the symbol. The second question 'was that person kind to you?' was accompanied with thumbs-up and thumbs-down images. The thumbs-up image was accompanied by the assistive word 'yes' and the thumbs-down image by the assistive word 'no'.

2.2 | Data collection

Observations took place every Monday to Thursday from 10:00 to 17:00 and every Friday from 10:00 to 16:30. Exact timings on each ward were not allocated in advance but researchers attempted to spend similar amounts of time on each ward. Inpatient wards included two female wards, two male wards, one ward for people with a dementia, and one ward for patients who were medically fit for discharge. All patients with a dementia were eligible to take part with the exception of those who were critically ill, at end of life, in protective isolation, or had other clinical reasons as specified by the nurse in charge. Each eligible patient was approached by a researcher and given verbal and written information about taking part in the study, leading to discussion and opportunity to ask questions, and then the patient was invited to indicate whether or not they wished to take part. In line with the UK Mental Capacity Act (2005) all patients were assumed to have the capacity to decide about taking part in the study unless there was evidence to the contrary. Researchers assessed capacity during their discussions with patients about their inclusion in the study. Patients deemed to lack capacity to decide about taking part in the research were included in the study if the researchers could contact a personal consultee (a partner, relative or friend) and that the consultee advice indicated their inclusion. Patients were excluded on consultee advice, when a consultee could not be reached, or, regardless of having capacity or not, if patients indicated verbally or non-verbally that they were unhappy with participating. Members of hospital staff received advance written

information about the study and the observations, were informed when observations were taking place and were able to opt out.

Data were gathered using QuIS, PWB-CIP and the patient-rating tool. Observation sessions were a maximum of one hour long and included two researchers during each session. Individual patients were observed up to three times, on different days. One researcher used QuIS to rate each interaction using one of five response categories (Table 1). The second researcher used the PWB-CIP to rate the same interaction using all of the 10 possible behaviours or affective states, rating them 'Yes' or 'No' to indicate whether they were observed or not. Researchers located themselves in a discreet location near enough to the patient to be able to see and hear interactions. If within an interaction the bed curtains were drawn by either hospital staff or relatives the observation was paused. The observation would begin again once the bed curtains were pulled back. If the view of any researcher became impaired during an interaction these were recorded as null data.

Patients who were involved in staff and patient interactions longer than 30 s were approached to provide a patient rating once the member of staff had left the bed bay. The researcher asked the patient the first question; 'how did that make you feel?' whilst shown the thumbs-up and thumbs-down images with assistive words 'happy' and 'not happy'. The patient was encouraged to point to their preferred response. The patient was then asked 'Was that person kind to you?' whilst shown the thumbs-up and thumbs-down images with assistive words 'yes' or 'no'. The patient was encouraged to point to their preferred response. Inviting patients to point to their preferred response allowed us to include patients with communication problems. It was also considered a more discreet way to share views rather than verbalising responses which might be overheard by others. This was intended to minimise the psychological threat for people rating their own care while still in receipt of it. Once the patient rating was complete the observation session was terminated. Researchers recorded in writing their experiences of gathering patient ratings.

QuIS data were collected using the Quality of Interactions tool (QI Tool), a tablet-based interface that enables users to enter data in real-time for subsequent wireless upload to an encrypted central database. PWB-CIP and patient-ratings were recorded in paper form and later transcribed to Microsoft Excel database. Researchers ($n = 3$) were trained to use all instruments on a half day classroom-based course, followed by four hours of field-based practical training. None of the researchers were employed by the participating hospitals.

2.3 | Analysis

Analysis was performed using Microsoft Excel Office 365 Version 1908 and Minitab 18. Frequencies and proportions were calculated for each of the five QuIS categories. Negative protective and negative restrictive ratings were summed to produce (total) negative interactions frequency and proportions. Other ratings (positive social,

positive care and neutral) were summed to produce (total) non-negative interactions frequency and proportions. Frequencies and proportions of patient responses to each of the patient rating questions were calculated.

Minimum, maximum, mean and median PWB-CIP scores were calculated. On PWB-CIP scale, items 1–3 were calculated with Yes = 1, No = 0; items 4–10 were calculated with Yes = 0, No = 1. Individual items were then summed to produce a total well-being scores with possible range of 0–10 with 10 representing highest well-being. A weighted average summary score, rounded to the nearest whole number, was calculated where individual items were missing.

Patient ratings were cross-tabulated with frequency of negative (vs. non-negative) QuIS interactions. PWB-CIP items were separately cross-tabulated with frequency of negative (vs. non-negative) QuIS interactions. For each cross-tabulation risk difference, 95% confidence intervals (CIs) and statistical significance using Fisher's exact test were calculated. Statistical significance at 5% level was used to guide interpretation of results. We calculated the mean PWB-CIP score for interactions that were rated as negative by QuIS, and compared this with the mean PWB-CIP score for non-negative interactions, using t-tests to test significance.

3 | RESULTS

One hundred and forty-six people were invited to join the study and, of these 107 were recruited and included in the study, a recruitment rate of 73%. Patient ages ranged from 70 to 98 years. QuIS ratings were obtained on 525 interactions, 278 (53%) involving male patients and 247 (47%) with female patients. Of the 525 QuIS ratings, 490 (94%) interactions had an associated PWB-CIP rating. There were 217 attempts at patient ratings, resulting in 114 responses to the Happy/Unhappy question and 147 responses to the Kindness question.

Most interactions were rated by observers using QuIS as positive care (56%, 293 out of 525) or positive social (18%, 97 out of 525). Ten percent of interactions using QuIS were rated as either negative protective or negative restrictive (total negative of 55 out of 525) (See Table 2). The mean PWB-CIP score was 8.7 and median was 9 (out of possible range 0–10, with 10 indicating highest psychological well-being). The minimum PWB-CIP score recorded was 2 and the maximum was 10. Most patients (89%, 102 out of 114) answered 'happy' to the question 'How did that make you feel?' Most patients (96%, 141 out of 147) answered 'yes' to the question 'Was that person kind to you?'

3.1 | QuIS and patient ratings

Table 3 illustrates the relationship between QuIS ratings and patient ratings. When an interaction was rated negative using QuIS the absolute risk of a happy patient rating was 4% lower than when QuIS was rated non-negative ($p = 0.551$). When an interaction was rated

TABLE 2 Quality of staff-patient interactions measured by Quality of Interactions Schedule (QuIS)

QuIS	Number (%age) (n = 525)
Positive social	97 (18%)
Positive care	293 (56%)
Neutral	80 (15%)
Negative protective	11 (2%)
Negative restrictive	44 (8%)
Total non-negative ^a	470 (90%)
Total negative ^b	55 (10%)

^aTotal non-negative = sum of positive social, positive care and neutral.

^bTotal negative = sum of negative protective and negative restrictive.

negative using QuIS, the absolute risk of a patient rating the care as 'kind' was 4% higher than when QuIS was rated non-negative ($p = 1.000$).

Researcher records reflect challenges to obtaining direct patient-ratings. When patients were asked, 'How did that make you feel?' many patients responded by asking, 'How did what make me feel?' This suggested that patients were unclear on what was being asked, and had not made the connection between the question and the interaction that had taken place. Researchers found that patients gave generic answers to the second question, 'Was that person kind to you?' Rather than referring to the member(s) of staff involved in the interaction, patients would often give responses referring to all staff being kind. Researchers also found that some patients answered both questions without looking at the responses on the tool, instead responding verbally and maintaining eye contact. The researcher records captured alongside the PWB tool suggest that some patients seemed more able to use the tool and respond to the questions than others.

3.2 | QuIS and psychological well-being ratings

For interactions where QuIS was rated negative, the mean PWB-CIP score was lower than where interactions where QuIS was not negative (7.9 vs. 8.8 $p = 0.036$), indicating lower PWB.

A negative QuIS rating was associated with a negative rating on seven out of ten individual PWB-CIP items (Table 4). Two of the remaining three PWB-CIP items ('pulls or moves away in response to contact from others' and 'agitated or fearful response when touched by another person') attracted no negative ratings, that is they were not observed at all. The strongest associations between QuIS and PWB-CIP were for the items 'positive verbal response to contact from others' (absolute risk difference of $-41%$, $p = 0.000$), 'smiles or laughs in response to contact from others' ($-16%$, $p = 0.031$), 'relaxed facial expression' ($-12%$, $p = 0.011$) and '(absence of) saddened facial expression' ($-9%$, $p = 0.013$).

TABLE 3 Frequency of negative Quality of Interactions Schedule (QuIS) ratings by patient ratings

Patient rating	Patient response	Negative QuIS (n = 55)	Absolute risk difference (95% confidence interval) ^a	p
1. How did that make you feel?	Happy	6/7 (86%)	-4% (-31%, 23%)	0.551
	Unhappy	1/7 (90%)		
2. Was that person kind to you?	Yes	11/11 (100%)	4% (1%, 8%)	1.000
	No	0/11 (0%)		

^aDifference in chances of a positive response when QuIS is negative versus when QuIS is non-negative.

TABLE 4 Frequency of negative QuIS ratings by Psychological Well-Being (PWB) ratings

PWB item ^a	PWB response	Negative QuIS (n = 55)	Non-negative QuIS (n = 470)	Absolute risk difference ^b (95% confidence interval)	p
1. Smiles or laughs in response to contact from others	No	42/53 (79%)	277/435 (64%)	-16% (-27%, -4%)	0.031
	Yes	11/53 (21%)	158/435 (36%)		
2. Relaxed facial expression, jaw not clenched or tightened	No	12/54 (22%)	43/436 (10%)	-12% (-24%, -1%)	0.011
	Yes	42/54 (78%)	393/436 (90%)		
3. Positive verbal response to contact from others	No	35/53 (66%)	111/436 (25%)	-41% (-54%, -27%)	0.000
	Yes	18/53 (34%)	325/436 (75%)		
4. Frightened facial expression	Yes	5/54 (9%)	15/436 (3%)	-6% (-14%, 2%)	0.057
	No	49/54 (91%)	421/436 (97%)		
5. Saddened facial expression	Yes	7/54 (13%)	18/436 (4%)	-9% (-18%, 0%)	0.013
	No	47/54 (87%)	418/436 (96%)		
6. Asks repeatedly to go elsewhere	Yes	1/54 (2%)	2/436 (0%)	-1% (-5%, 2%)	0.296
	No	53/54 (98%)	434/436 (100%)		
7. Pulls or moves away in response to contact from others	Yes	0/54 (0%)	2/435 (0%)	0% (0%, 1%)	1.000
	No	54/54 (100%)	433/435 (100%)		
8. Listless, resists involvement in interaction	Yes	4/54 (7%)	42/436 (10%)	2% (-5%, 10%)	0.805
	No	50/54 (93%)	394/436 (90%)		
9. Frustrated or agitated during interaction	Yes	5/54 (9%)	11/436 (3%)	-7% (-15%, 1%)	0.023
	No	49/54 (91%)	425/436 (97%)		
10. Agitated or fearful response when touched by another person	Yes	0/54 (0%)	1/436 (0%)	0% (0%, 1%)	1.000
	No	54/54 (100%)	435/436 (100%)		

^aWording of these items used with permission of PWB-CIP authors.

^bDifference in chances of a positive response when QuIS is negative versus when QuIS is non-negative.

4 | DISCUSSION

This study aimed to assess the validity of QuIS ratings in relation to the care experiences of people with a dementia in a general hospital setting. We compared QuIS ratings with independent researcher ratings of patient PWB and patient ratings of the same interaction. Ten percent of interactions observed were rated using QuIS as negative quality. We did not observe a strong relationship between QuIS and patient ratings, although detected a weak association between QuIS ratings and patient ratings of 'happy' or 'unhappy'. When QuIS was rated negative, mean researcher-rated patient well-being was lower than when QuIS was non-negative. Negative QuIS

ratings were also associated with a negative rating on seven out of ten individual PWB-CIP items.

While the recruitment rate of 73% was relatively high for this patient population and patients were comfortable enough with the research that no data collection was halted because of negative patient response, researcher records suggest that patients found responding to researcher questions difficult or not relevant. This does not mean patients were unable to provide assessments of their own care, more that there is a need to develop more meaningful and relevant methods, especially in patient populations that include people with a dementia. Our approach to patient ratings had merit because it involved people affected by dementia in the development

of the instrument. It also provided a method that did not assume that people could understand written words or could verbalise their selection, but, all the same, the problems we encountered were similar to those documented elsewhere in the literature.^{5,27}

While the use of structured instruments does not generate the rich insight into people's views and experiences in the way that qualitative research can do, their value lies in the production of data that can be used for measurement and comparison. Our findings suggest that observer-based measures are a useful and inclusive way of quantifying the experiences of a group often overlooked in research. Use of QuIS appears to be a useful method in generating valid quantitative data in relation to people's experiences of receiving care. Our finding that more negative QuIS observer ratings are associated with lower PWB in people with a dementia suggests that QuIS can generate insight into patient experiences from the perspective of people in receipt of that care. Our findings confirm the relevance of QuIS for the measuring the quality of care of people with a dementia in general hospital settings and this has not been previously achieved. It lends further support to the use of QuIS as a candidate outcome measure in evaluations of services and service improvements for populations that include people living with a dementia.

The data were collected from one hospital site and therefore are not representative of all older person hospital wards. It was not possible to observe all patient and staff interactions—for example, some staff would draw the curtains around a patient's bed space whilst interacting with patients—and this may have introduced selection bias. Observations did not take place during busy periods when staff are under pressure and rushed but the study did report negative outcome ratings so captured a mix of patient experiences. Furthermore, negative experiences were reported by patients although patients and staff were aware of the research, indicating that even if staff changed their behaviour in response to being evaluated, they were not completely successful in eliminating negative interactions.

There were several strengths of the study. First, all observations were carried out by two independent researchers concurrently. Secondly, a large number of observations were conducted within six older person wards providing intra-organisational variability. Thirdly, the use of multiple tools enabled researchers to assess the viability of generating data from a group largely neglected in research.

5 | CONCLUSION

The findings that some patients had difficulty responding to researcher questions reflects the need for the development and use of more meaningful and relevant methods, especially in patient populations that include people with a dementia. Our findings of an association between lower quality QuIS-rated interactions and lower PWB indicate that QuIS ratings are valid in relation to patient experiences of care and lend support to the use of QuIS with patient populations that include people with a dementia.

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CONFLICT OF INTEREST

The authors report no conflicts of interest.

ETHICS STATEMENT

Ethical approval for the research was granted by the National Social Care Research Ethics Committee 14/IEC08/1018.

DATA AVAILABILITY STATEMENT

All data requests should be submitted to the corresponding author for consideration.

DISCLAIMER

The views and opinions expressed therein are those of the authors and do not necessarily reflect those of the funders, NHS or the Department of Health and Social Care.

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