# Evaluation of the Nurse Directed Beds Model of Care

Pilgrims Hospices in East Kent

Report

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## Contents

## Executive Summary

Patient complexity needs to be understood to match resources to need in palliative care (Pask et al 2018). A future increase in need for these services means alternative models of care should be considered (Etkind et al 2017). Pilgrims Hospice is unique in having three inpatient units (IPUs) run by a single organisation covering a distinct geographical area. This set up enabled the implementation of a stand alone nurse directed unit taking less medically complex patients alongside traditionally staffed IPUs.

The project aimed to answer the following:

1. Can we identify complexity prior to admission into the hospice?
2. Do nurse directed beds in a standalone unit help to use resources more effectively, and if so how?
3. Do Nurse directed beds in a standalone unit produce similar outcomes and satisfaction to matched patients in the other inpatient units?

Data were collected from routine activity figures, surveys of staff and service users, thematic analysis of operational meetings and a focus group of staff at a strategic level. Tools were utilised to measure complexity and level of need (Gannon 2017).

The findings supported using resources more efficiently and for the nursing team to be empowered and developed.

Concerns related to:

- Travel time when patients not admitted to the closest unit.
- Inefficient use of beds
- A perceived need for a full multidisciplinary team including medicine
- Delay in death certificate completion

The medical complexity tool appeared unreliable as a triage tool.

The concept received support from participants. However we were unable to effectively answer the questions posed for a mixture of system, data collection and methodological reasons. There were some positive outputs of learning from the project to take forward for the future. Including improvements in three site communications and collaboration, post death practice, empowerment of Canterbury ward staff to be proactive and take more responsibility, further development of the ANP role and sharing of skills.

The agreed outcome was the stand alone nurse directed unit was not a good use of Pilgrims resources. Whilst the concept was agreed the model needed to be adjusted: perhaps more integrated beds at each site, looking at having nurse and advanced nurse practitioner (ANP) directed alongside medically directed beds.

# 1. Introduction

Patient complexity needs to be understood to match resources to need in palliative care (Pask et al 2018). A future increase in need for these services means alternative models of care should be considered (Etkind et al 2017). The idea of case-mix and directing resources most effectively so the right person works with the right patient in the right place at the right time will be an important approach moving forward in palliative care. This had been a theme that Pilgrims Hospices had been working towards.

Pilgrims Hospice covers the whole of East Kent with three inpatient units, three community teams as well as medical input to the local hospitals in a distinct, wide-spread geographical area. A full range of community services is run including therapy centres and a fully equipped multidisciplinary team. At the time of the project Pilgrims were working with three whole time equivalent consultants but these were supported by three advanced nurse practitioners and 6.6 WTE middle grade doctors.

To share this specialist resource efficiently the aim was to have the most medically complex patients admitted to the inpatient units (IPU) at Ashford and Margate. The focus of increased consultant input could be based at these two sites. The third unit at Canterbury was chosen to be a nurse directed unit where patients with less complex medical needs could be admitted,. This was chosen due to geography, as it was in between the two other sites and therefore less travelling distance for patient, and because of changes to the acute hospitals.

The process agreed was:

- Patients identified for admission by local MDTs would be assigned a level of medical complexity alongside their priorities and needs for admission
- All admission requests would then be reviewed centrally in a cross site Pilgrims "SIITREP" meeting for bed allocation
- Medically complex patients would be offered admission to Margate or Ashford Hospices
- The criteria for assessing medical complexity and the process for admissions is shown in appendix 1
- Patients with low medical complexity would be offered admission to their site of choice provided a bed was available
- Assessments of medical complexity were then repeated on the day of admission and on death or discharge

The overall aim of the service evaluation was to assess whether the nurse directed beds system was working as intended.

To evaluate this change in system we sought to answer the following questions:

1. Can we identify complexity prior to admission into the hospice?
2. Do nurse directed beds in a standalone unit help to use resources more effectively, and if so how?
3. Do nurse directed beds in a standalone unit produce similar outcomes and satisfaction to matched patients in the other inpatient units?

The project ran from May 2017 to November 2017. This report sets out the method, results and conclusions of the evaluation of this change in model of service delivery.

## 2. Methods

The departure of a colleague unexpectedly left the organisation short of consultant input meaning the implementation of this process was faster than planned. We therefore admit that the methods and implementation is therefore not as robust as they could have been.

With the short time scales the evaluation had to be pragmatic and consisted of five sources of data that could be quickly and efficiently gathered and analysed, using in-house resources.

1. Quantitative data identified from the electronic patient record. The quantitative data collected consisted of information from all three inpatient units on admissions, discharges, deaths, length of stay, level of complexity of patients, level of care received and from whom. The collation and extraction of this information in itself identified further problems with systems and data recording which will be discussed in due course.

2. Survey of staff involved in the project to evaluate their view and experiences of how the project was meeting it's objectives

3. The "I want great care" satisfaction survey which is completed by patient or carers on each of the in patient units, to gather their views on care received at each IPU.

4. Thematic analysis of documents from key operational meetings related to the nurse directed beds project.

5. Focus group of individual members of staff involved at a strategic level to discuss and evaluate the findings from the data sources 1-4 and agree a way forward.

The hospice Medical Director and Nursing Director were key leaders in the implementation of this project. They were supported by a nurse directed beds steering group representing the clinical teams in the hospice who met at monthly intervals, and the evaluation was supported by the hospice Research Facilitator and Business Intelligence Analyst.

# 3.Results

## 3.1 Analysis of electronic patient records

Quantitative data analysis of data from the patient records was hampered by poor data recording and limitations on our patient record system. The hope had been to record, and therefore compare, data from the previous year and across the three geographical areas in the following way:

- Time to admission from acceptance for admission
- Number of admissions, length of stay and outcomes
- Time, frequency and complexity of medical input to PHC ward
- Workload data for consultants
- IPOS patient rated outcome measure, Karnofsky Performance Scale (KPS), Carer Questionnaire and Barthel Index
- Repeated complexity tool measures to compare pre and post admission
- Preferred place of death and actual place of death per geographical area
- Admissions per geographical area
- Admissions length of stay and outcomes

Below are findings from the activity data during the project between June-November 2017 across the three inpatient sites. This activity related to inpatient admissions, compared to the same activity the previous year. Data was also collected for patients admitted during the project relating to their level of complexity, level of care intervention and the type of health professional they received care from.

### *Inpatient Admissions*

Quantitative data from our patient record system was extracted on admissions, length of stay, number and percentages of deaths and discharges across all three sites and compared to the same period in 2016. In addition, information of the level of complexity of patients, the level of care intervention and the health professional involved in that care was extracted from the patient record to understand more about patient needs and the care delivered across the different inpatient units.

Pilgrims Hospices operates on a 12 bed capacity on each of its inpatient unit sites, which remained in place during the nurse directed beds intervention. Table 1 shows the admissions per month across the three inpatients in the period June-September 2017 compared with the same time period in 2016. The numbers admitted remained steady across each month for all sites. The total shows clear differences between the numbers of admissions for each site between the years when the two different systems were in place.

Thanet inpatient unit (IPU) was the busiest of the three inpatient units, admitting the highest number of patients in 2016, and it remained the highest still with the introduction of the nurse directed beds system in 2017, increasing its number by 8% across the two years for the period June-September. In contrast the number of admissions to the Ashford site saw an increase of 20% between the two periods with the introduction of the nurse directed beds system. Conversely the

Canterbury site saw a decrease of 18% inpatient admissions in the two periods. This perhaps indicates that a higher proportion of patients who would have been admitted to Canterbury before had been admitted to the Ashford inpatient unit under the new system.

The finding that Canterbury had a lower number of admissions compared to both Ashford and Thanet was perhaps expected as they could only taken admissions considered low complexity, where as Ashford or Thanet were admitting patients with more complex symptoms but could also admit low complexity patients locally if they had capacity.

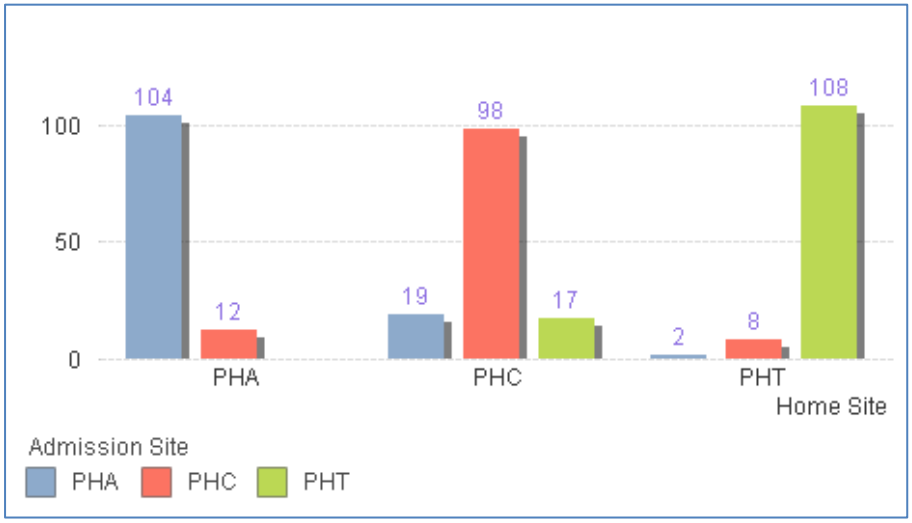
**Table 1 Admissions by IPU site and month/year**

| Year | Ashford | Canterbury | Thanet | Total |
|---|---|---|---|---|
| *2016* | | | | |
| June | 24 | 34 | 36 | 94 |
| July | 26 | 36 | 30 | 92 |
| August | 24 | 28 | 31 | 83 |
| September | 24 | 30 | 35 | 89 |
| **Total** | **98** | **128** | **132** | **358** |
| | | | | |
| *2017* | | | | |
| June | 35 | 26 | 35 | 96 |
| July | 28 | 29 | 35 | 92 |
| August | 30 | 22 | 40 | 92 |
| September | 30 | 28 | 33 | 91 |
| **Total** | **123** | **105** | **143** | **371** |

*Source:* Pilgrims hospice Infoflex data extracted 28/11/2017

Overall reasons for the differences in admission between sites, whether it be geography or other factors is uncertain. Chart 1 demonstrates that over the course of the nurse directed beds system between July-November 2017 the majority of patients were admitted to the hospice unit within the catchment area in which they reside.

**Chart 1 Admission location based on home site 1st July-30th November 2017**



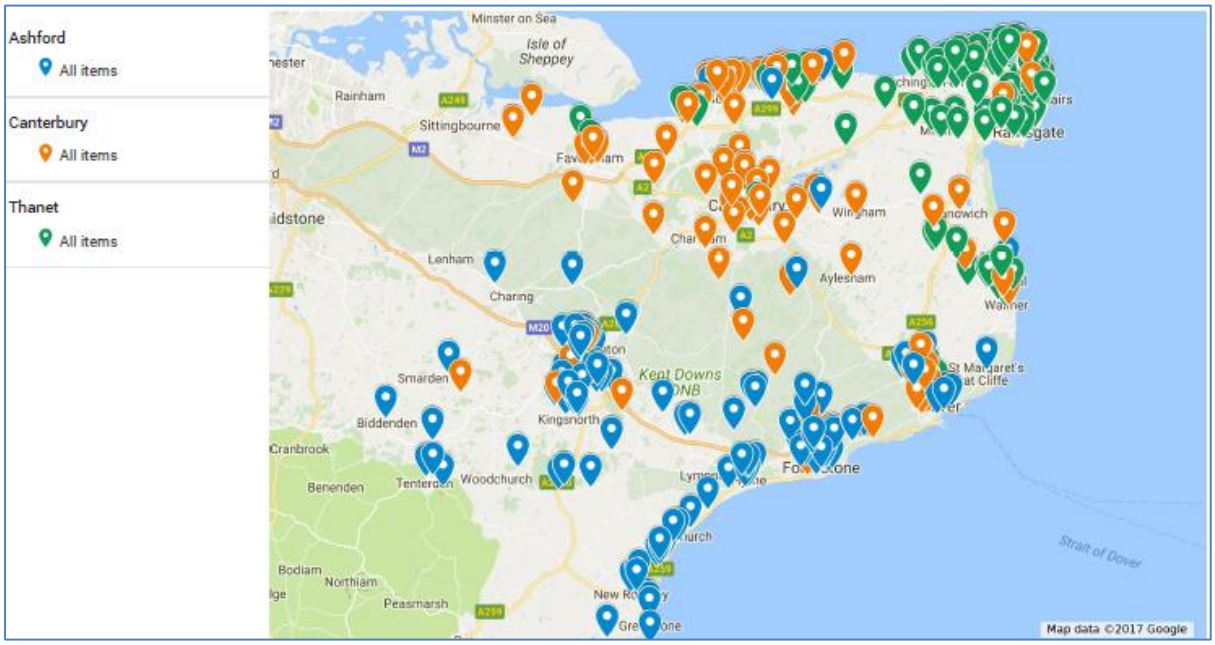

The admission maps in chart 2 plot the home location of inpatients, which are colour coded to show which IPU they were admitted to. They show the distance involved and the wide geographical

spread of the urban areas and therefore the patients that are served by the three hospices. However looking at these maps comparing admissions in 2016 and 2017, it is perhaps patients from the Dover, Canterbury, Herne Bay, and Whitstable areas who would have traditionally been in the Canterbury site catchment area were more likely to have been admitted to Ashford site rather than Thanet if they had more complex needs.

**Chart 2 Site admission by patient postcode of residence and year**

**01/06/2016 – 01/09/2016**


**01/06/2017 – 01/09/2017**




NB: The maps are at different in scale due to a patient who was resident in west Kent in 2016

The median length of stay (days) was also calculated for each site, per month across the two years. There are some differences to note between the two time periods (2016 being usual practice and 2017 the nurse directed system). For Canterbury the median length stay was quite consistent across the four month period, ranging between 4-6 days in each month in 2016. Where as in 2017 during the system change, the median did fluctuate in Canterbury between 2.5-7 days across each month. For the Ashford and Thanet sites, taking the more complex patients during the nurse directed beds intervention, the median length of stay tended to be less number of days during the intervention in 2017 than it had been in usual practice in 2016. (table 2). In both years Ashford tended to have slightly higher median length of stay than Thanet. The meaning of such observations are difficult to interpret, as it is possible that median length of stay could have similar variation on any given month depending on the needs of the patient.

**Table 2 Median length of stay (days) by IPU site and month**

| Year | Ashford | Canterbury | Thanet |
|---|---|---|---|
| *2016* | | | |
| June | 9.5 | 4 | 8 |
| July | 11 | 5 | 8.5 |
| August | 8.5 | 6 | 6.5 |
| September | 10.5 | 4 | 5 |
| | | | |
| *2017* | | | |
| June | 4 | 7 | 4 |
| July | 5 | 3 | 4 |
| August | 6.5 | 2.5 | 3 |
| September | 6 | 5 | 5 |

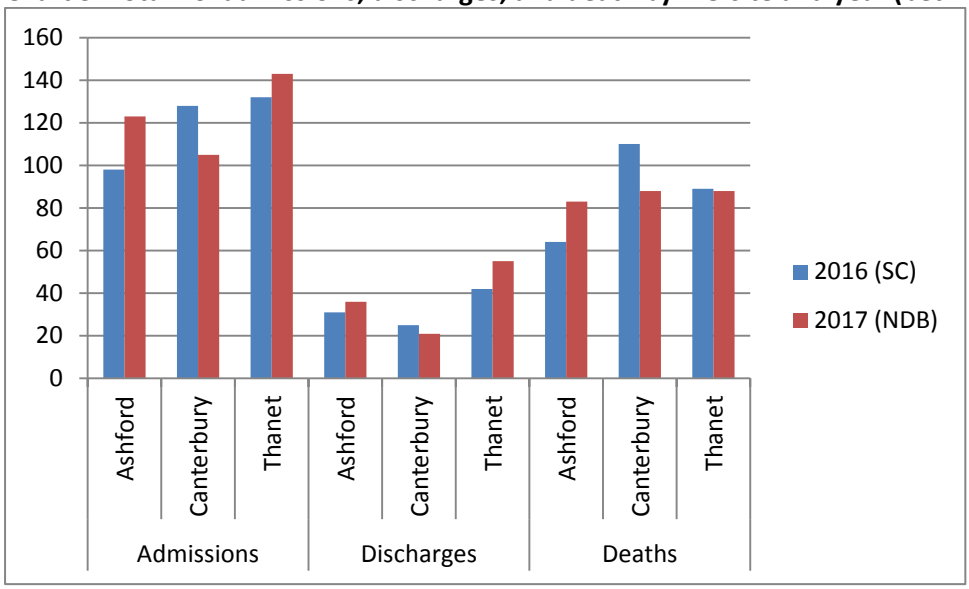
*Source:* Pilgrims hospice Infoflex data extracted 28/11/2017

Chart 3 provides data on the discharges and deaths per inpatient site between June-September 2016 during usual practice, and the same time period in 2017 during the nurse directed beds intervention. As this is the raw data, which hasn't been adjusted for admission rate, the total number of admissions has also been included in the chart to aid comparison between sites. As the number of admissions varies between site this will also have an impact interpreting the number of discharges and deaths. It was highlighted above that overall numbers of admissions in each year had changed particularly for Canterbury and Ashford.

The data in chart 3 shows that Canterbury had the highest proportion of deaths compared to number of admissions, which would be expected given they were in a low complexity unit. However Canterbury also had the largest decrease in number of deaths compared to the previous year, compared to the other sites. Ashford saw the largest increase in deaths as well as admissions compared to the previous year. Thanet had high rates of admissions and therefore deaths and discharges compared to the other sites in 2016 and this remained consistent in 2017 and experienced the least change with the introduction of the nurse directed beds system.

The number of discharges was more proportionate to the number of admissions across all sites, with Thanet having the most discharges and Canterbury the least in 2017 during the nurse directed beds intervention. This would be expected due to the higher number of admissions in Ashford and Thanet.

**Chart 3. Total no. admissions, discharges, and death by IPU site and year (between June-Sept)**




### *Levels of Complexity*

Within the nurse directed beds system, in order to triage admissions to the appropriate IPU a level of medical complexity tool (appendix 1) was used as a decision aid to decide which category patients best fit e.g. low, medium or high complexity. This level of complexity was measured prior to admission, on admission, and at discharge/death.

Analysis undertaken of the records aimed to identify if patients' level of complexity could be accurately captured and whether they were admitted to the appropriate site. Chart 4 shows data on level of complexity pre admission, on admission and on discharge or death by site admitted captured for July to November 2017. There was also a high proportion of missing data where the level of complexity was not recorded as part of the medical complexity assessment. A total of 368 complexity assessments were recorded for 317 patients. This is lower than had been expected given each patient should have been assessed at 2-3 time points by the time of discharge or death. Analysis per month indicates that during the course of the nurse directed beds system the number of assessments per patients remained consistent from implementation and throughout (Table 3). A higher proportion of data was not recorded (shown as 'no entry'), particularly for Ashford and Thanet, where perhaps criteria for admission were less stringent in terms of understanding their level of complexity. This makes it difficult to interpret the data for these sites, particularly around change in complexity at the time points of admission. A higher level of 'no entries' however would be expected for complexity at discharge/death for patients who had not yet been discharged or who had died and were therefore not assessed.

Overall for patients admitted to any site between June and November just over third (n: 128, 35%) were considered low complexity, a similarly proportion were considered medium (n:130, 35%) and 20% were considered high complexity. Complexity overall was very similar for patients on admission but was difficult to assess with the discharge/death combined data.

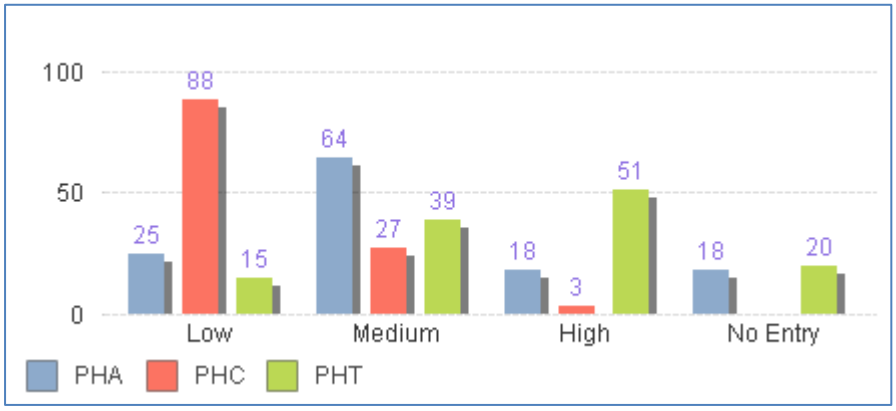
The vast majority of complexity assessments were completed by Advanced Nurse Practitioners on admission (n: 163). Assessment were also completed by Specialist Registrars (n: 102) or other

Doctors/Consultants (n: 53). Similarly most of the complexity assessments at discharge were completed by Advanced Nurse Practitioners (n:122). Fewer were completed by Registrars or Doctors (n:20), some were completed by community nurses (n:  26)or staff nurses on the ward (n: 15).

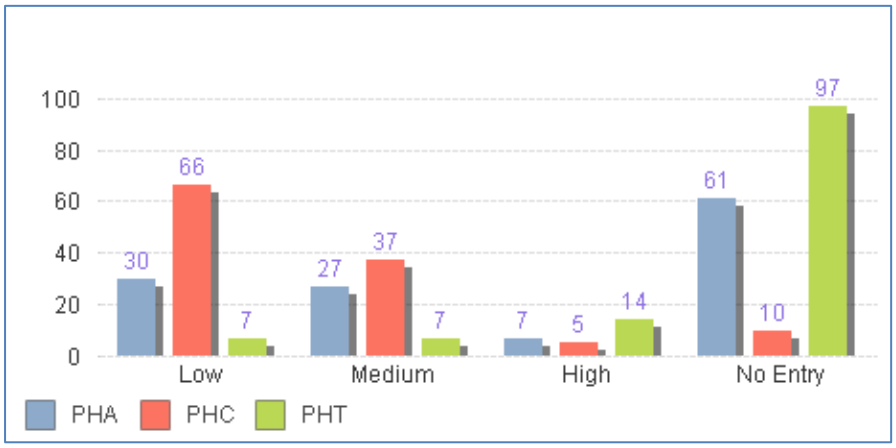
The figures in chart 4 overall show that most patients with low complexity were being admitted to the Canterbury site and the vast majority of those with high/medium complexity were admitted to Ashford or Thanet. However a third of patients admitted to Canterbury were assessed as either medium or high complexity prior to admission. A further proportion of the patients initially recorded as low on pre-admission were assessed as medium or high on admission to Canterbury. From this finding alone it appears that a proportion of patients were being admitted to Canterbury for other reasons even though they were of medium or high complexity. For other patients levels of complexity  was not accurately identified prior to admission, or their level of complexity could change by the time of admission, or in some cases it was not being recorded at all. This therefore indicates that nurse directed beds did not work as intended in terms of the use of a level of complexity measure to triage patients appropriately in the nurse directed beds system.

**Chart 4. Levels of Complexity for Admissions by site between  1st June 2017-30th November 2017**

Complexity Prior to Admission




Complexity on Admission



Complexity On Discharge/Death

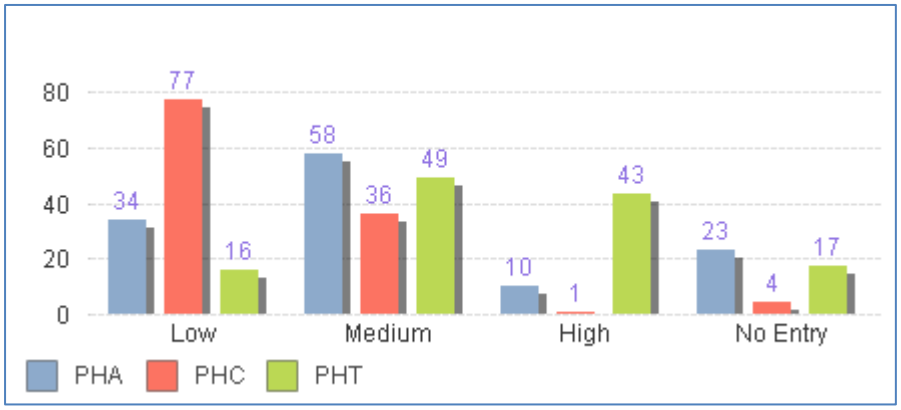



**Table 3. Count of complexity assessments and patients, per month**

| Months | Complexity Assessments | No. of patients |
|---|---|---|
| July | 69 | 65 |
| August | 74 | 69 |
| September | 73 | 68 |
| October | 72 | 64 |
| November | 78 | 75 |
| Total | 368 | 317 |

*Source:* Infoflex extracted 18/05/2018

### *Level of Intervention*

A level of intervention measure was introduced in practice to quantify the intensity of care and treatment inpatients in each unit received. The tool (see appendix 2) was based on that previously developed and used by Princess Alice Hospice (Gannon 2017). Staff were asked to record their level of intervention after every contact when writing in the patient's notes. The four levels of intervention were as follows:

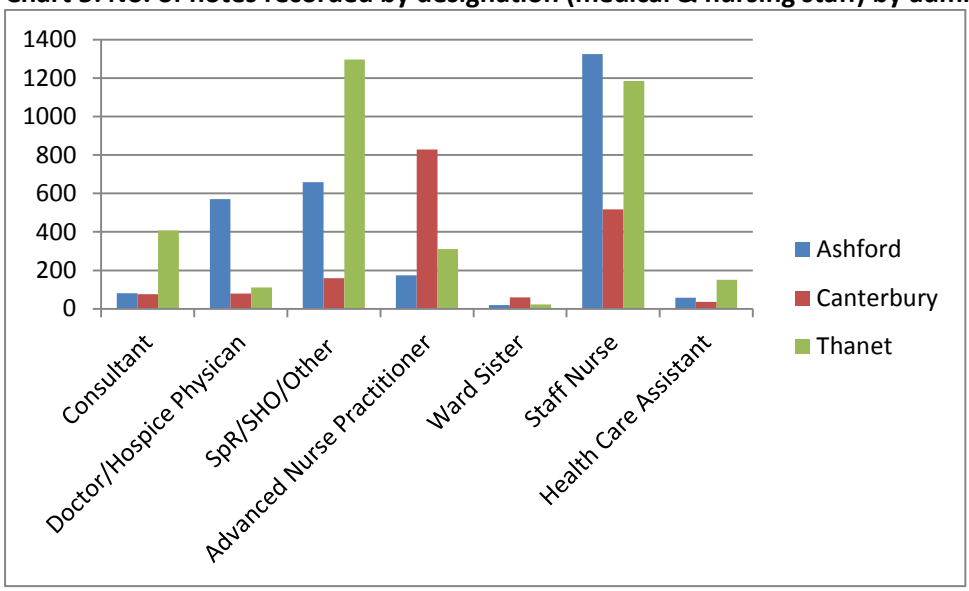
**Table 4 Levels of intervention**

| |
|---|
| **Level 1 – Low**<br>Simplest level of intervention on issues relating to patient care |
| This level would be applied to an intervention which provides consultancy to others when no direct contact with the patient is made. This may be a one-off discussion relating to patient care, initiated by healthcare professionals on an ad-hoc basis, but could be a more formal request for advice and/or support. The intervention is delivered either face-to-face or over the telephone. |
| **Level 2 – Medium**<br>Single patient contact to resolve a specific problem |
| This intervention would include a one-off review of a patient in the clinic who has a specific need, such as a symptom control issue or a concern about their disease progression. The intervention requires a specialist level of knowledge and skill but is easily resolved during a single consultation. |
| **Level 3 – High**<br>Short-term involvement for multiple problems |
| Level 3 is a more involved level of intervention both in the complexity of the presenting problems and the need for several interventions by the CNS. Examples include provision of support and information when a patient has just been given bad news, assessment and management of needs when associated with more complex aetiology whether physical, psychological or social. There are also patients for whom care is shared with another healthcare team involving several updates with one another such as telephone communication with the relevant palliative care team. |
| **Level 4 – Intensive**<br>Interventions when patients require ongoing specialist advice and support for complex problems |
| The fourth level describes interventions of the greatest complexity, when there is requirement for long-term specialist involvement, generally for several months both during and after cancer treatment. The intervention may involve assessment and management of multiple problems, which may reflect patients with rapidly changing disease status, additional health problems, and/or challenging family dynamics. |

However the level of intervention was not routinely captured during note writing as it was hoped and over 50% of the data was missing. Therefore it was not used further as part of the data analysis for the evaluation.

The number of notes written by designation and site were also analysed as an alternative to understand staff resources used. As expected a higher number of notes were written by ANPs and the ward sister in Canterbury compared to the other sites where a higher proportion were written by doctors. However notes were written for all sites for all designations which is probably reflective of the staff who were working at those sites throughout the week. The number of notes recorded was much higher for staff nurses in the higher complexity wards of Ashford and Thanet compared to the low complexity ward in Canterbury (chart 5). Notes for various allied health professionals were fairly even across site. A note of caution is that in the figures relating to notes recorded during IPU stay could only be extracted by date of admission and discharge, therefore a small number of notes may instead relate to community episodes of care rather than IPU on the day of admission or discharge to the IPU.

**Chart 5: No. of notes recorded by designation (medical & nursing staff) by admitted site**




## 3.2 Hospice staff survey

### *3.2.1 Response*

The survey was sent out by email to all clinical and care staff working at any Pilgrims Hospice site area in late September 2017. They were given a window of two weeks to respond. The survey was available to complete online via Survey Monkey. A total of 84 responses were received. This is approximately a third of the hospice clinical, allied health professional and care staff
Given that the main change with the introduction of the nurse directed beds had been to the Canterbury site a higher response was received from staff usually working at this site (41%) with Thanet having the lowest number of respondents (Table 5).

Just over 20% chose not to answer the question about the site they usually work. This was similar for answers to the questions on the area of the service they worked and for which professional group they belonged to, with 25% and 21% respectively choosing not to answer (Table 1).

Almost a third usually working in an inpatient unit setting, and another third in both inpatient and community setting in the hospice. Just over a third of the respondents where registered nursing staff, followed by unregistered and allied health professionals, with the smallest number of responses from medical staff (8%) which reflects the professional demographic of staff working in Pilgrims Hospices (Table 5 below).

**Table 5. Staff survey response by staff characteristics**

| Characteristics | Count (n) | Percentage (%) |
|---|---|---|
| *Usual site of work* | | |
| Ashford | 14 | 16.7 |
| Canterbury | 34 | 40.5 |
| Thanet | 7 | 8.3 |
| Cross-site | 11 | 13.1 |
| No answer | 18 | 21.4 |
| *Area of the service usually work* | | |
| Community services | 11 | 13.1 |
| Inpatient unit | 26 | 31.0 |
| Both | 26 | 31.0 |
| No answer | 21 | 25.0 |
| *Professional group* | | |
| Medical | 7 | 8.3 |
| Nursing (registered nurse) | 30 | 35.7 |
| Nursing (HCA or other unregistered) | 12 | 14.3 |
| Allied health professional | 17 | 20.2 |
| No answer | 18 | 21.4 |
| All respondents | 84 | 100 |

When question responses in the staff survey findings are broken down by staff characteristics e.g. professional group the numbers are low and therefore should be interpreted with caution. The results were not statistically significant.

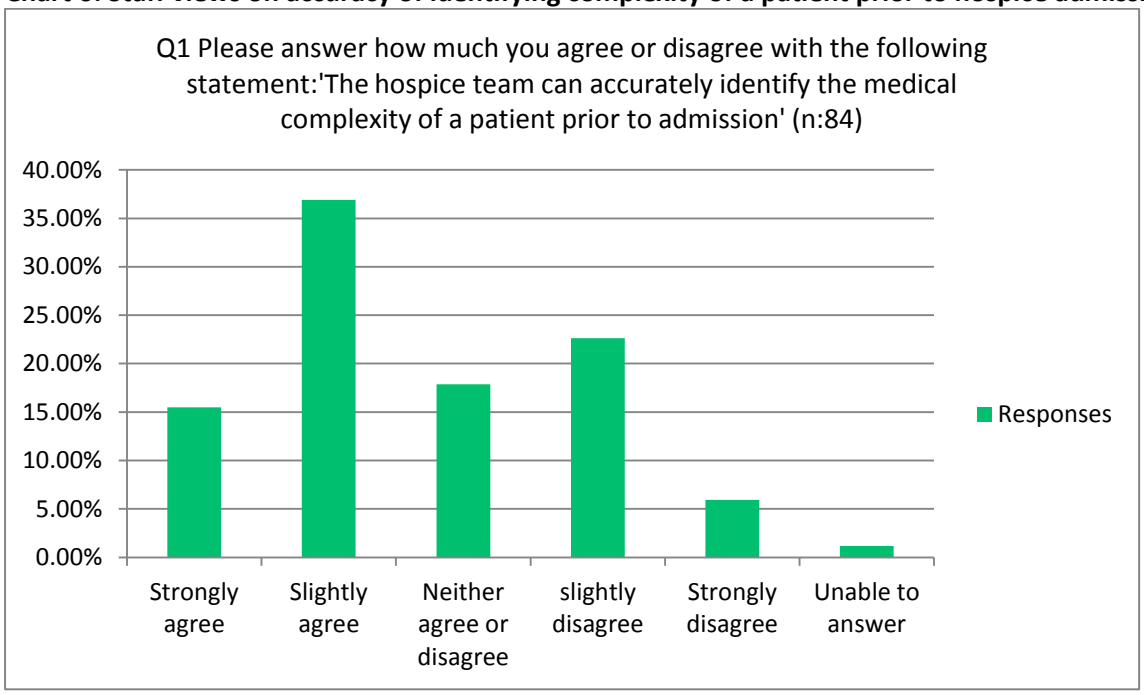
### *3.2.2 Identifying Complexity*

#### *Quantitative data*

In order to understand the key question of whether complexity could be measured prior to admission as a marker of success, staff were asked their perception of whether they thought medical complexity of a patient could be accurately identified prior to admission into the hospice inpatient unit.

Overall, half of the responders agreed to some extent with the statement that 'The hospice team can accurately identify the medical complexity of a patient prior to admission', with 37% slightly agreeing with the statement ,and 15% strongly agreeing. Just over a quarter disagreed, with 23% slightly disagreeing and 6% disagreeing strongly (Chart 6).

**Chart 6: Staff views on accuracy of identifying complexity of a patient prior to hospice admission**




Half of the staff who reported that they usually work at the Canterbury site felt that medical complexity could be accurately identified by either strongly agreeing (15% n:5) or slightly agreeing with the statement (35% n:12). This was lower compared to the other sites with 57% (n:8) in Ashford, 68% (n:7) cross-site workers and 70% (n:5) of Thanet staff agreeing with the statement, very few disagreed.

A higher proportion of staff who worked in both community and inpatient settings agreed with the statement (65% n: 17). The lowest proportion agreeing worked in an inpatient unit (46% n:12) and those working in community services were most divided about the statement.

A higher proportion of medical staff agreed with the statement that the hospice team could accurately measure complexity before admission (72% n:5) compared with 65% (n:11) of allied health professionals, 50% (n:15) of registered nurses and 42% (n:5) of unregistered nursing staff who tended to feel they neither agreed or disagreed (42% n:5).

### *Qualitative data*

Thirty-three respondents provided further comments relating to whether the hospice team can accurately identify the complexity of a patient prior to admission. The majority of comments fell into three theme areas which highlighted situations where there were sometimes difficulties with accuracy. These were:

- Not enough information provided to make an accurate decision prior to admission when a patient is not seen face to face (15 comments)

  *'If you are taking referrals on the phone from sources other than hospice staff, you are accepting the opinion of the referrer and this can at times may [be]subjective and not always accurate' (*Thanet staff member)

- Patient needs, and therefore their complexity, often changes pre and post admission (18 comments)

  *'Generally it is possible to estimate the complexity of a patient prior to admission but on occasions their condition can unexpectedly change to increase or decrease complexity'* (Staff member, site unknown)

- Issues relating to consistency in decision making about complexity of a patient and site for admission.

  *'There may be some clear cut cases but situations change and how people are at home or in hospital does not always reflect what you see on admission. I think staff are also influenced by trying to keep their own patients in their own unit which influences how they score them on complexity' (*Canterbury staff member)

The issues highlighted in these three themes appear inter-related within the complexity assessment and admission decision process, making it a very subjective one, as summed up by the following quote:

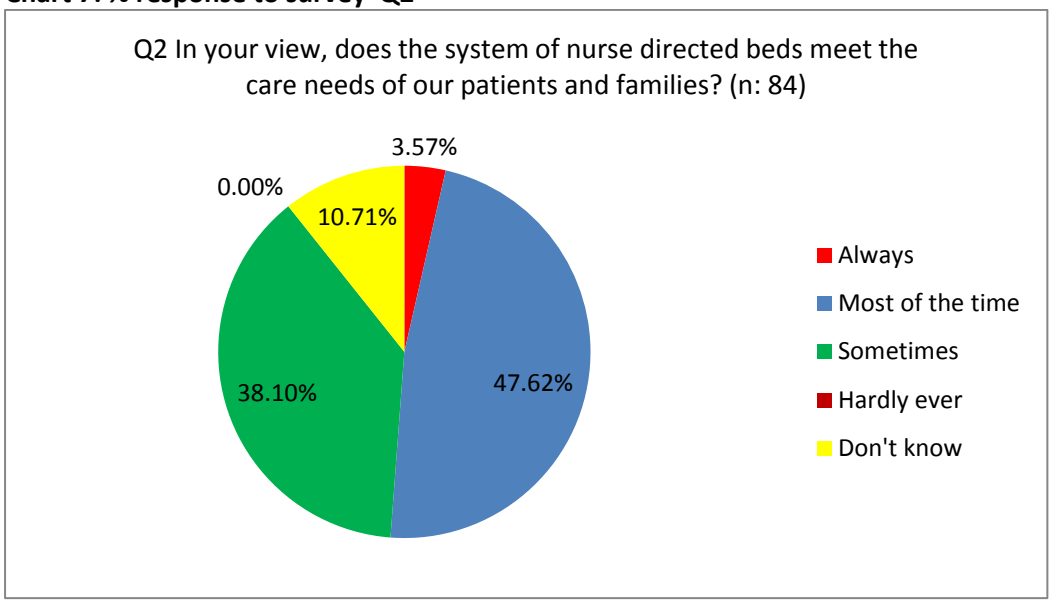
*'This is a subjective decision based on the information presented, which can alter due to a number of factors'* (Cross site staff member)

### *3.2.3 The care needs of patients and families*

#### *Quantitative data*

To help in the understanding of whether the nurse directed beds model was producing outcomes and satisfaction for patients and families, staff were asked their perception on whether they felt the system met the care needs of patients and families. Just under 50% (n:40) of respondents felt that it met their care needs most of the time with 38% (n:32) reporting that they were sometimes met. Only 4% (n:3) felt it always met the care needs of patients and families. No one reported that the system hardly ever met care need (chart 7).

**Chart 7: % response to survey Q2**




These findings indicate that there was concern among staff that there were occasions or circumstances where the care needs of patients were not always being met. The qualitative findings help to highlight what these concerns were.

### *Qualitative data*

Thirty-six respondents gave further explanation to their answer on whether the nurse directed beds system was meeting the care needs of patients and their families. The majority of these (n: 25) related to observations of unmet need, but there were also some positive comments (n:10) of the model but these tended to be mixed with observations of elements of the system that they thought didn't work so well. This is reflected in the quotes below.

The comments relating to unmet needs fell broadly into three theme areas:

- Views that the wishes of patients and/or their families to be cared for in their preferred location, close to home, were not always met. Difficulties around visiting arose if a patient is 'out of area' for medical needs or there are delays in admission if an offer of a bed in the decided location is declined. As previously highlighted in comments to Q1, decisions on patient and family care needs were influenced by whether complexity or preference is given priority.

> *'Difficult for family members and friends to visit at times as patients come to Canterbury even though they may live close to Thanet or Ashford hospice. Relatives may feel the need to stay overnight not necessarily because of the patients' condition but because of a more complicated journey that is necessary for those admitted out of area. This can be challenging for the ward as extra people may need caring for'* (Canterbury staff member)

*'This is because those who are happy with the venue offered are more likely to feel their care needs are met. Whilst in reality, those who are not happy with this system are able to decline the offer, stating a preference for an alternative venue and often getting offered a bed there if/when available. The system based on complexity does not seem to be consistently applied'* (Staff member, site unknown)

- Views that symptom control, especially pain, can be less well managed in the nurse directed beds unit. Observations in the comments are that some patients require more timely medical review and amendment of medication and there is less discussion about medication amendment under the new system in Canterbury.

  *'I think families are well supported in any given situation but feel that currently patients' needs are not always identified or met. Certainly have experienced more patients being more agitated and their pain less well controlled'* (Canterbury staff member)

  *'In cases of rapid deterioration/development of some complexity I feel we are not able to satisfactorily meet these needs as we have in the past. Also feel there is a lack of confidence in prescribing adequate medication. Also much more regular errors re. reviews of breakthrough doses'* (Staff member, site unknown)

- Views that post death processes (e.g. certification) require improvement in the nurse directed beds unit, which is related to not having the presence of a doctor on the ward who can not sign off death certificates if they haven't seen the patient.

  *'With regard to care and wellbeing the patient and family needs are met. With regards to processes post-death these need to be improved massively'* (Canterbury staff member)

The following quote sums up these themes around patient and carer needs:

*'I think for the most part the system is meeting the needs of the patient and family however there are times when a patient comes to Canterbury when another site would be much more convenient for relatives to visit increasing the stress for the family at an already difficult time. The system of continuing a syringe driver regime or other medication over the weekend without review means sometimes slight alterations are not made that might benefit the patient symptom management. Also there have been delays in issuing the death certificates if a doctor has not seen the patient prior to death which again add stress for the relative'* (Canterbury staff member)

In addition to these main themes there were complimentary comments, particularly focusing on the multi-disciplinary team, currently at Canterbury, being very experienced and supportive to patients and their family. Alongside there were also a few comments more broadly with the view that medical experience of the doctor should be part of that team in the regular management of patients, and also that they should be available at the point of need, which they felt is what the patients expect.

### *3.2.4 Impact on staff roles*

*Quantitative data*

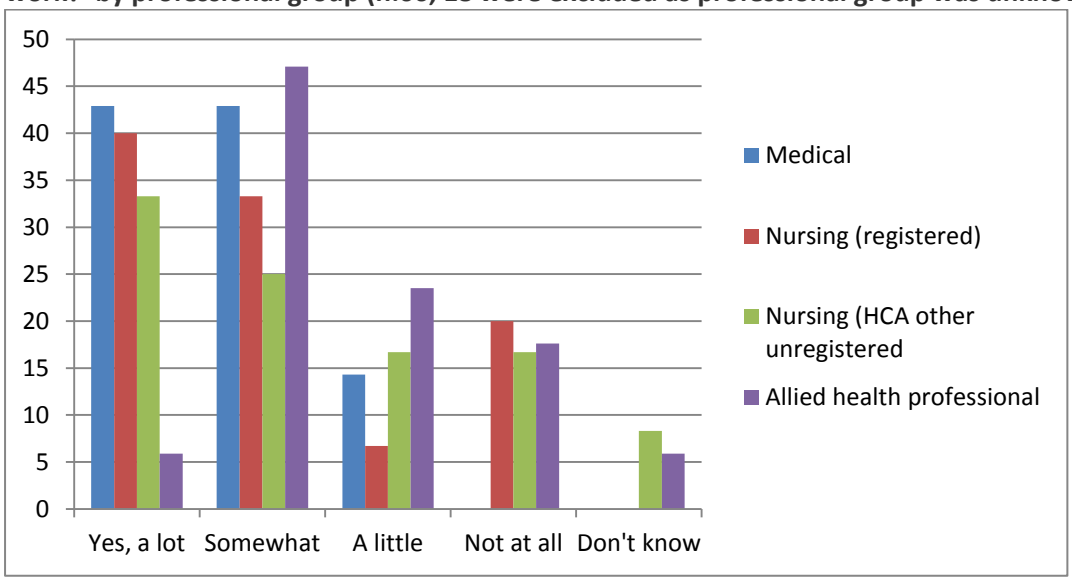
The change to a nurse directed beds system has involved a shift in focus of the work of advanced nurse practitioners to the inpatient unit at Canterbury, the movement of doctors at the Canterbury site into a more peripheral role in the inpatient unit, focusing instead on community patients and providing medical cover at other sites where needed. The intended change was that ward staff at Thanet and Ashford were dealing with the more medically complex patients and the Canterbury staff with the less complex, with the community multidisciplinary teams having to make judgements on level of complexity to aid decision making on the appropriate site should a patient require hospice admission. It is therefore important to understand the impact that these changes have had on staff roles, whether positive or negative. Overall in the survey 29% (n:24) of staff felt that the system change had impacted their role a lot. 35% (n:29) said it had somewhat, 20% (n:16) a little and 5% didn't know (n:4).

Canterbury staff reported that the system change has impacted them the most, with 35% (n: 12) saying it has impacted a lot and 29% (n: 10) somewhat. However it had effected 36% (n:5) of cross site staff a lot, whereas Ashford and Thanet staff thought it had impacted them only somewhat, 43% (n:6) and 57% (n:4) respectively. A higher proportion also reported that it hadn't impacted on their role at all in Ashford (21% n:3) and in Thanet (29% n: 2) compared to the other sites. This indicates that dealing with less medically complex patients had a bigger impact on staff than for those dealing with the more complex patients.

In terms of area of work the impact was quite even across work areas. In terms of professional group nurses and doctors felt affected most and AHPs the least in terms of their role. This would suggest that this perhaps due to issues associated with the system of medical complexity rather than other factors. It also could mean in terms of case mix that AHP levels may not be influenced by filtering patients on the basis of medical complexity

All doctors who replied said that the change in system had impacted on their role, with 43% (n:3) saying it had effected their role a lot or somewhat. Registered nurses were the next group who had felt most impact with 40% (N:12) saying a lot and 33% somewhat (n:10) (chart 8).

**Chart 8:**
**% response to Q3 'Has the change to a nurse directed beds system had any impact on your role or work?' by professional group (n:66, 18 were excluded as professional group was unknown)**




*Qualitative data*

Comments on decision making processes related to assessing complexity which led to delays in decisions being made, difference in volumes of work across the three sites and delays in death certification:

> *'Sometimes the lateness of decision making due to allocation of complexities, means admissions are arriving late which impacts on shifts/ care /doctors availability to clerk'* (Ashford staff member)

> *'Can be difficult to admit to Thanet if not high or medium but want Thanet only. Can be difficult explaining to patients, family and other professionals why they are being offered another site. Sit rep meeting delays admissions which sometimes means although a person has been agreed it is later cancelled as transport is too late'(*Thanet staff member)

> *'More 'out of area' admissions, can make discharge planning more difficult with access to visits etc. Also the need to handover more from PHT and PHA for post discharge follow up, or to accept referrals from them for post-discharge follow up for patients I have not seen on the ward – complicates things'* (Canterbury staff member)

> *'My workload has increased hugely since these changes, both in volume of work and the length of time it is now taking me to complete certain tasks post-death. Some aspects of this change have made doing my job very difficult as the process of issuing death certificates has slowed down immensely, which has meant I am dealing more and more with frustrated and distressed bereaved relatives, who are unable to understand why it takes such a long time (in some cases) for medical certificates to be issued* (Canterbury staff member)

*'There have been times when PHC has been very quiet and the other two sites pushing for discharge as they have had people waiting for beds'*(Cross-site staff member)

The next theme (17 comments), related to Canterbury staff in particular of sometimes feeling 'deskilled' in their roles. These were highlighted by Canterbury staff themselves, cross-site workers and those whom site was unknown. These comments observed fewer development opportunities for the nurses e.g. having less involvement in medications. There were also comments observing less clarity and accountability within the staffing structure under the new system at Canterbury. e.g. relating to clinical supervision. Some of the comments refer to the change to a low complexity unit has meant a higher proportion of patients at the end of life, meaning staff have been less involved in discharge planning and rehabilitation.

*'I am disappointed to be working in an area that is less specialist and the effect it has on maintaining nurses' clinical skills. I miss the doctors' knowledge, confidence and expertise and the sense of containment they provide' (Staff member, site unknown*)

*'There is the risk of trained staff becoming deskilled due to the lack of for example IV antibiotics, blood transfusions and treatment of acute reversible conditions. Also the doctors and nurses on the ward did discuss the need for any changes to be made and this led to informal teaching allowing experienced doctors to share their knowledge (Staff member, site unknown)*

*'Nurses not included in which meds to be prescribed, the dose and reason for using one drug opposed to another, thus reducing learning opportunities for staff…. Increasing number of deaths and reduced number of symptom control admittances has impact on staff moral and reduced skills required to care for 'low complex' patients' (Cross-site staff member).*

Other themes from the comments related to the increased physical and psychological stress on staff (8 comments) which has already been touched upon above. These related to the increased workloads (all sites), dealing mostly with patients near the end of life (Canterbury), increased support needed for 'out of area' patients. Other comments reflected more on how the system changes have affected patients and carers when having difficult discussions, for example about service provision at Canterbury or death certification delays (7 comments).

*'Patients have been admitted on many occasions very near the end of life, it has been difficult building relationships with the family and the patient….. We do not admit the patients as we once did who need symptom control earlier on in their illness so we do not have such a varied mix of patients i.e., younger, more mobile and more able generally therefore the age and dependency of patients has increased the workload'* (Canterbury staff member)

*'Yes which is part of my development and involvement with NDBs. It has been a positive part of my clinical development as knowledge base and clinical skills have developed. Often need to work independently in meeting clinical requirements of NDBs, including inpatients and admissions…I frequently work beyond my hours , frequently working 60 - 90 minutes extra per day either on site or at home There have been occasions where I have worked 2 - 3 hours above my working hours in a day, and on one occasion 6 hours. This has been due to late admissions and related complexities'* (Canterbury staff member).

Despite the areas of difficulty described, there had been some positive outcomes relating to staff roles as a result of the change. Particularly perhaps for the Advanced Nurse Practitioners who have been given this opportunity to further develop their pivotal role in a nurse-led inpatient unit.

*'It is lovely to work with the ANPs and they are all very pleasant supportive and informative*' (Canterbury staff member

### *3.2.5 Use of resources*

*Quantitative data*

The change in resource use in terms of the input from Advanced Nurse Practitioners (ANP) and doctors is integral in the new nurse directed beds system, particularly within the Canterbury inpatient unit. In order to help answer and understand the question of whether this standalone unit uses resources more effectively, the following two questions were asked in the survey:

*Please answer how much you agree or disagree with the following statement:*

*Q4 The nurse directed beds system has reduced the need for a practitioner input (doctor or ANP) at the Canterbury site at the weekend?*

*Q5 The nurse directed beds system is an effective use of current practitioner resource (doctor and ANP)?*

There were very mixed views to these two questions from which we could not draw clear conclusions. These two questions were unanswered by the highest proportion of respondents, with a third (n:25) saying they were unable to answer or neither agreed or disagreed with Q4 (18% n: 14). Similarly 29% (n:22) neither agreed nor disagreed with the statement in Q5 and 15% (n:11) said they were unable to answer. Eight respondents didn't complete either question. This could be partly due to respondents working on other sites or other areas of the hospice who did not feel knowledgeable about an area of the hospice they did not work, which is reflected in the qualitative comments.

The responses were more evenly spread for Q5 where staff were asked more generally about whether nurse directed beds system is an effective use of current resources. With 21% of staff (n:16) agreeing slightly and 14% agreeing strongly (n:11). At the opposite end of the scale, 12% (n:9) strongly disagreed and 9% disagreed slightly (n:7) with the statement.

*Qualitative data - Practitioner input at the weekend*

Of the 27 comments received the majority felt there was a need for weekend input.

> '*This has fluctuated each weekend. Patients at PHC have needed reviews over the weekend either over the telephone or clinical assessment. This has been managed within the workload when working the weekend and managed within the hours worked'* (Canterbury staff member)
>
> '*On most weekends the doctor has had to come over from another site to deal with patients becoming less well and to alter syringe driver meds that have been prescribed to stay the same over the weekend'* (staff member, site unknown)
>
> *'Reduced workload yes but feels like there is often still a need to visit/*review' (Ashford staff member)

*Qualitative data - use of current practitioner resources*

Comments received suggested that ANP community skills and medical inpatient skills were being under utilised. Also that other team members and resources were affected (20 comments).

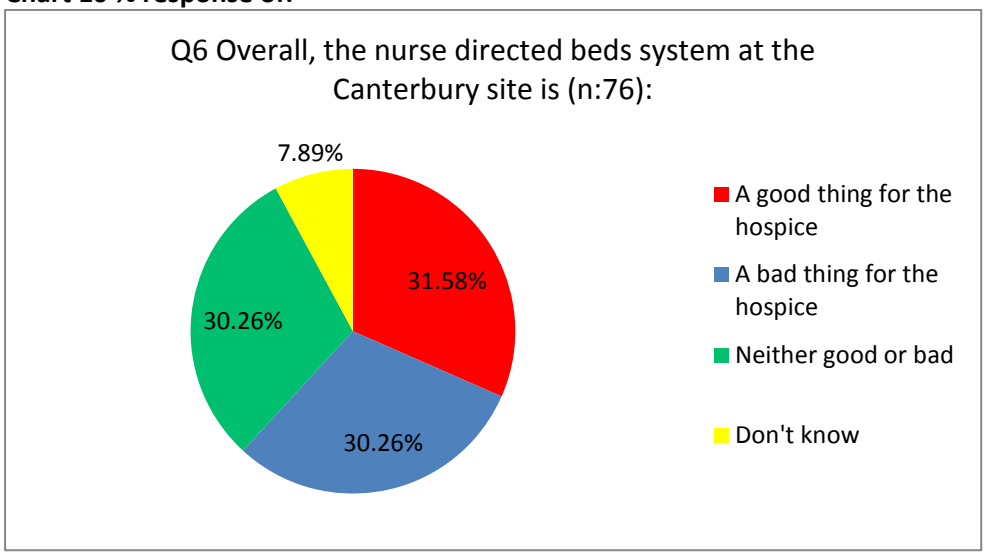
> *'Agree inpatient skills from ANP but I don't know how much their huge community skill set is being effectively used. Doctor input in inpatient unit appears superficial in nature and I don't think this is an effective use of their inpatient skill set'* (Ashford staff member)
>
> *'I believe it is a good way to use current resources. Nurses and Doctor numbers are down. I just think there is a lot of fine tuning required' (*Canterbury staff member)
>
> *'If it were possible would be better to have some nurse directed beds on each site rather than all at one site' (*Thanet staff member).

### *3.2.6 Overall views on the nurse directed beds system*

*Quantitative data*

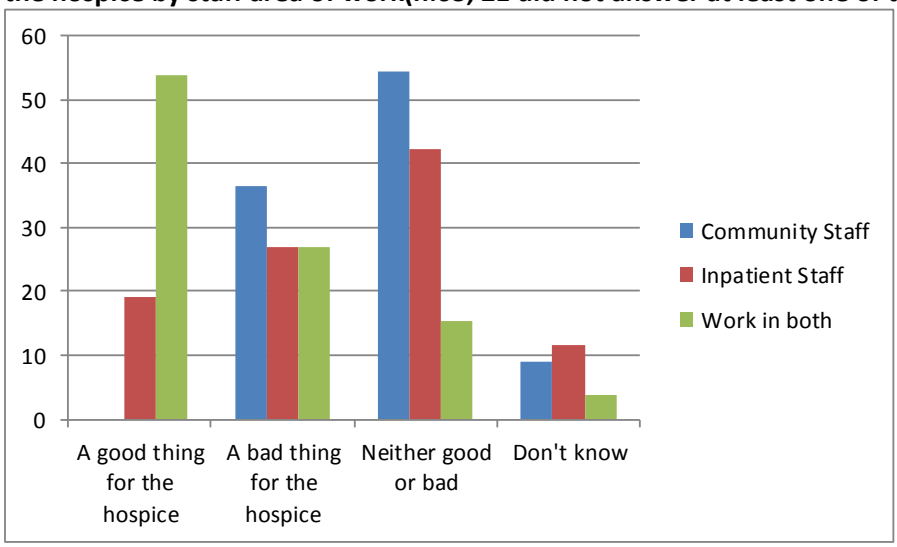
Staff were asked a general question on whether they felt the nurse directed beds system at the Canterbury site was a good or bad thing for the hospice. The results for this question were very evenly split between the three categories, demonstrating the breadth of feeling and opinion about the project.

**Chart 10 % response of:**




There no notable differences between site or professions in response to this question. In relation to work area, inpatient staff were more mixed in their response, but none of the community staff through it was a good thing. Just over half of staff who worked in both settings through it was a good thing (chart 11).

**Chart 11:**
**% response to Q6 Overall, the nurse directed beds system at the Canterbury site is good or bad for the hospice by staff area of work(n:63, 21 did not answer at least one of these questions)**




As the response to Q6, on whether the nurse directed beds was a good or a bad thing for the hospice was evenly split, this question was cross-tabulated with Q1-5 in the survey to help identify which features of the system may or may not contribute to these views.

The staff members who thought nurse directed beds system was a good thing for the hospice tended to agree that the team can accurately identify medical complexity prior to admission, that the system could meet the care needs of patients and families most of the time, agreed that the

system is an effective use of current practitioner resources but they were unsure about whether it has reduced the need for practitioner input at weekends.

Staff who thought the nurse directed beds system was a bad thing marginally tended to disagree that complexity could be accurately identified prior to admission, tended to think it met care needs of patients and families some of the time, disagreed with the statement that it is an effective use of current practitioner resource and disagreed that it reduced need for practitioner input at weekends at the Canterbury site.

The response relating to impact on staff roles was similar, with slightly more of whose who thought it was a bad thing saying it had impacted a lot or somewhat, indicating that this impact could have been negative rather than positive for those respondents, as highlighted in the qualitative data.

### *Qualitative data*

There were 35 open text comments, where staff were asked to explain their answer further on whether they thought the nurse directed beds system as a good or bad thing for the hospice. These comments reflected much that had been reported earlier:

> *'Good and bad are perhaps the wrong descriptors here - it is simply that I don't think this system is the best system. The best system is an integrated MDT where everyone brings their different skills to the table and in terms of medics and ANP's/nurses - this means working together side by side'* (Canterbury staff member)
>
> *'Pro's and Con's: does utilise the ANP skills better, has dealt with staffing issues, has enabled 3 inpatient sites to continue operating, but does make my role more challenging in terms of 'out of area' patients, I also appreciated a doctor's perspective/ advice at times, and I feel uncomfortable that we now cannot offer a truly equitable service across the inpatient 3 sites'* (Canterbury staff member)
>
> *'The issue of the balanced MDT is key and I think this process has had a slightly damaging effect on ANP / medical relationship. I think the principle of nurse directed beds is a good one but not as a stand alone unit. It is useful to place patients with higher complexity in two sites as this helps more effective use of our resources but we need to decide whether this is acceptable to patients and work harder on ensuring this is undertaken effectively'* (Cross site staff member)
>
> *I would love this to develop and work, as I feel our nursing staff are often undermined for their expertise and skills and I think a nurse led Hospice is a very positive thing. However, I feel that, there are things that need to be addressed in order for this to work well* (Canterbury staff member)

A third theme from these comments related to nurse development. Some felt that this situation reduces the ward nurses' 'work enjoyment' and does not offer the 'variety in the way it once did' (8 comments).

'*I feel it has been a positive experience for my role clinically, has enhanced MD working and collaboration I feel it has also helped to develop RN colleagues in their assessments and care of the patients, particularly in acting more autonomously at weekends in reporting changes'* (Canterbury staff member)

### *3.2.7 Further qualitative comments*

Staff had a final opportunity to provide any further comments they would like to make, and 18 comments were received. Many of the same points were raised as had been in the previous questions. The most common theme related to a lack of confidence in the processes and procedures of the system e.g. MDT decision making and expectation of roles for doctors and nursing staff (7 comments). The next most common theme related to issues of an inequitable service across sites if patients have to go 'out of area', sometimes causing delays for admission/ discharge for patients and causing stress for patients, families and staff (5 comments). There were also further comments relating to this around not meeting patients needs around patient choice, medication and symptom control in Canterbury as previously stated. A small number of comments highlighted that expectations of external professionals and service users should be considered and the difference in provision across the three hospice sites could adversely affect public and professional opinion of the hospice in the long term should this system continue.

It is interesting that comments refer to separate sites rather than MD teams or as Pilgrims Hospices as one organisation. However there were also a few comments that were positive overall, which highlighted staff support and confidence in their own and colleagues' roles and expertise, including the MD teams, and that the system was a good use of clinical resources (4 comments).

*'The ANP's have been very supportive to the ward staff and a positive impact in making a difference' (Canterbury staff member*)

Some respondents did use this question to provide solutions of how to address some of the issues they identified with the system. These suggestions are provided in the quotes below. A few also welcomed an opportunity to hear about the evaluation results.

*'Complexity of admission decisions often seem overly influenced by clinical/medical issues with complex social and psychological issues often not seeming to being given sufficient and comparable level of attention -particularly when determining which the hospice site that may be the most appropriate for admission. There needs to be robust procedures in place for handover over of patients on discharge when there care is being transferred back to another hospice site. This at present seems very ad hoc which significant and crucial information often not being communicated in the most helpful [way]. Might a MDT summary report be useful whereby all professionals groups who may have been involved contribute?'* (Ashford staff member)

*'If the current ANP system is to work then ANP's need a greater remit in their prescribing and clinical competencies'* (Canterbury staff member)

*'Why can't the ANP's have their own beds on each site to take the pressure off the doctors that way?'* (Canterbury staff member)

*'I would just like to reiterate, that a nurse led hospice is a very positive thing but that the ANP's need to listen to the nursing staff on the ward and involve them whole heartedly. We should also look towards other nurse led Hospices to see how they have worked through*

*certain aspects, i.e. verifications, the signing of death certificates and see how they have resolved our current problems. ANPs also need to look at better controlling pain and agitation. Issues have also arisen where staff from other sites have commented on the fairness of us receiving less complex patients but receiving the same pay as them, when they are dealing with more complex patients. I think they should be made aware of the increased dependency of low complex patients and the increase in deaths, (many occurring, within 24 hours of admission). Staff at other sites were also unaware of the rotation of deceased patients in Rose'* (Canterbury staff member)

'*I hope it is successful but sometimes discussions and changes in medication need to be more addressed'* (Canterbury staff member)

*'Needs more attention on clinical care expectations and less repeated meetings. More admin support'* (Canterbury staff member)

*'The them and us culture between the Doctors and ANP needs to be broken down, clearer definition of roles and expectations is also required'* (Cross site staff member)

*'A clearer, more formal and more robust system for handing back information to MDT colleagues on other sites ( on discharge) would be helpful in order to try to prevent information/observation being lost if time spent as an inpatient on a site other than their local one. Complexity with regards to social/psychosocial factors to feed more overtly into assessment of level of complexity for admission destination decision'* (staff member, site unknown).

## 3.3 Service user survey

Service user satisfaction is regularly collected for service users across the organisation from patients or their family/ friends using the 'iWantGreatCare' questionnaire. For the evaluation data collected from this survey from the inpatients wards across all three sites was analysed. The analysed data included the five month period after the nurse directed beds system was introduced between 1st May 2017 – 30th September 2017. The same data between May and September 2016 was also analysed to compare satisfaction levels with the previous year before the nurse directed beds system was introduced.

### *3.3.1 Response*

The number of survey responses were higher in 2017 than they were 2016, with 246 completing in 2017 compared to 149 in 2016. This difference may be explained by a change in how they were handed out. The survey was mainly completed by either the patient or family member. The age and

gender demographic were similar for both years, with women more likely to complete than men. Response was highest in Ashford across both years and the proportion of responses was lower for Canterbury inpatients in 2017 compared to 2016. This may be due to the difference in type of patients, with Canterbury being low complexity who may lack capacity to complete a survey and/or are more likely to be admitted close to death. Therefore friends or family may have been less likely to complete the survey or it was felt inappropriate to ask (table 7 below). The proportion of questionnaires completed by a patient (as opposed to a family number/friend) in Canterbury in 2017 (29%) had reduced compared to 2016 (52%).

**Table 7: iWantGreatCare' Service User Survey response**

| Year | May-Sept 2016 | May-Sept 2017 |
|---|---|---|
| *Site* | | |
| Ashford | 68 | 100 |
| Canterbury | 50 | 55 |
| Thanet | 31 | 91 |
| *Completed by* | | |
| A patient | 62 | 117 |
| A family member | 74 | 111 |
| A friend | 3 | 8 |
| Other | 7 | 7 |
| Unknown | 3 | 3 |
| *Age* | | |
| Average age (mean) | 67.20 | 68.95 |
| *Gender* | | |
| Male | 63 | 110 |
| Female | 84 | 134 |
| Unknown | 2 | 2 |
| All Respondents | 149 | 246 |

### *3.3.2 Quantitative data*

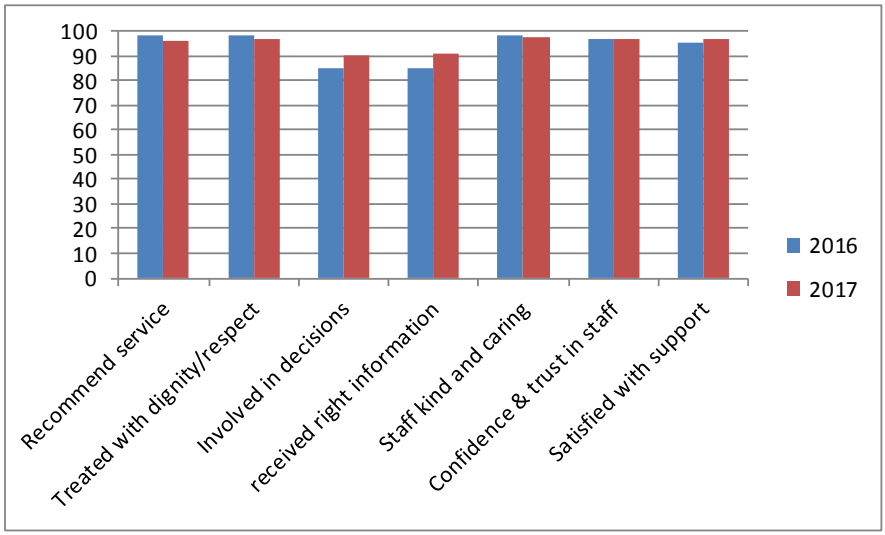
The survey asked respondents questions about the following topics:

- how likely they were to recommend the service to friends and family if they ever needed similar care or treatment
- whether they were treated with dignity and respect
- whether they felt involved in decisions made about them
- whether they received the right information about their care and treatment
- whether staff were kind and caring
- whether they had confidence and trust in staff looking after them
- whether they were satisfied with the support they received

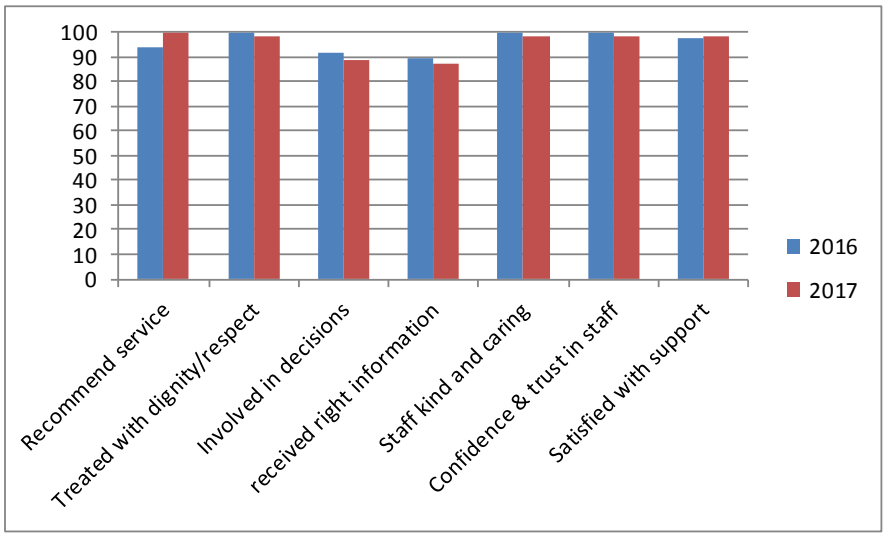
All questions were answered on a five point scale ranging from 'extremely unlikely' to 'extremely likely' or 'not at all' to 'totally' scored 1 to 5. The vast majority of responses scored highly with a score of 5 for all questions in both years, and across all sites, indicating that service users were extremely satisfied with the service. There were some very small variations in this high level of satisfaction between questions, years and inpatient unit site which are displayed in chart 12 below. Each bar represents the percentage of respondents who answered with a score of 5 for that question.

**Chart 12: % of highly positive responses to survey questions by year and site**

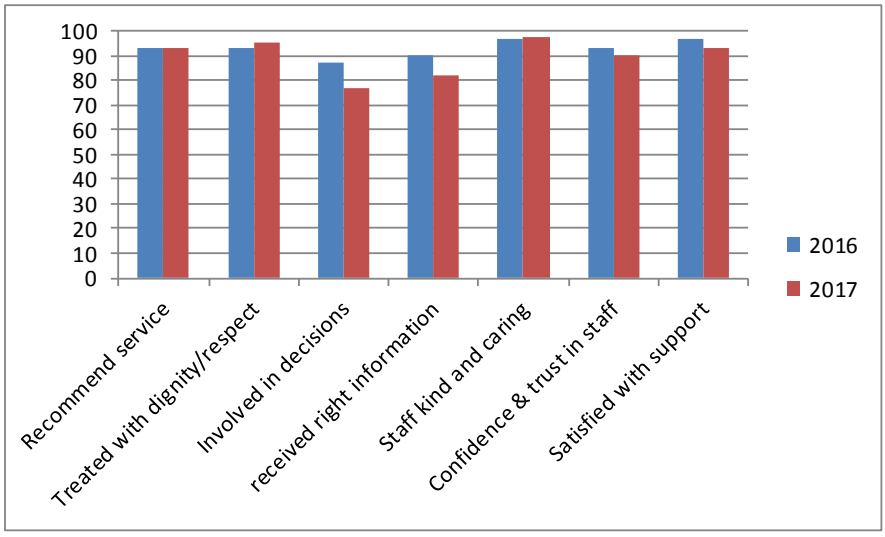
Ashford




Canterbury



Thanet




Feeling involved in decisions and that they have received the right information were the least highly scored questions for all sites, but with scores improving for Ashford since 2016, but reducing for Canterbury and Thanet. This indicated increasing dissatisfaction at these two sites in these areas, but only by a few percentage points and positive responses where still relatively high. For all other questions those scoring 5 were 90% or above, with an increase or decreased in variation each year and by site by only a few percentage points.

Canterbury was the only site to score 100% in some questions. This was in 2017 for service users saying that they were extremely likely to recommend the service to family and friends if needed, an increase of 6% compared to the same period the year before. For two other questions the score went down from 100% in 2016 to 98% in 2017 for response answering 'totally' that they were treated with dignity and respect, staff were kind and caring, and had confidence and trust in staff.

In 2017 when the nurse directed beds system was introduced and running, the differences between sites were very subtle given the high satisfaction levels overall across the three IPU. Ashford was marginally higher for service users feeling involved in their care and receiving the right information, where as Thanet scored the lowest. It is therefore difficult to attribute any of these subtle differences to sites being a high or low complexity unit as a distinctive feature as these are both high complexity units. Other questions relating to recommending the service, treated with dignity and respect, staff were kind and caring, confidence and trust in staff, and general satisfaction scored highest in Canterbury and lowest in Thanet, which is positive for the nurse led unit, caring for low complexity patients.

In summary as there were no significant differences between the two years results the nurse directed beds system did not appear to affect service user satisfaction.

### *3.3.3 Qualitative data*

The 'iWantGreatCare' survey also gave service users the opportunity to comment on what was good about their care and what could be improved. These comments reflected the positive experience provided in the questions above for both years and across sites. In the 2017 data there were no comments observed that specifically related to the nurse directed beds system, i.e. being cared for out of area, delays, not being seen by a doctor, or any of the other issues identified in the staff survey. In the data for both years commentary from service users focused on very similar themes, of which the vast majority were very positive and complimentary. There wasn't any noticeable disparity between the different sites. Overall the majority of comments observed the kindness and loving care and support received from staff and volunteers.

## 3.4 Document Review

Information was gathered on incidents reported at the Canterbury IPU, Canterbury IPU ward meeting notes and nurse direct beds meeting notes between 1st May 2017 and 30th September 2017. A thematic analysis was conducted on the documents.

Four incidents were reported on the complaints log during this time period, but no further information was provided on the nature of these incidents, which meant there was insufficient detail to analyse these further.

Two sets of minutes for ward meetings were received (from August and October 2017) and meeting notes for the nurse directed beds steering group were received for 14 meetings between 17th May and 1st November 2017. The frequency of these meetings varied, starting at weekly intervals in the first couple of months of the new system, then changing to monthly, then fortnightly nearer the end. The notes received provided insight into the practical and operational development of the nurse directed beds unit in Canterbury, in particular.

Early notes discussed the following processes:

- how patient complexity will be identified
- the SITREP meetings where decisions will be made on site allocation for admission
- referral processes
- death certification/ coroner process at Canterbury
- when patients decline the IPU site allocated to them
- recording and documentation required for the above processes

The processes relating to patient admission were monitored and adapted at steering group meetings through the whole time period of nurse directed, such as membership of the SITREP, completion and engagement of the admission request form, who should inform the patient of their site allocation, the lengthy time it can take to admit. Other areas regularly discussed and adapted were the out of hours processes (particularly weekends), the process of signing of death certificates. The completion and accuracy of the complexity scoring was also raised as a recording issue.

The Canterbury Ward notes highlighted a positive start to the nurse directed beds system, with good feedback reported from families regarding care received. Issues around the process of death certification were raised early on. In later meetings the new process for this and coroner referrals were highlighted to staff to try and prevent future delays. Issues were raised regarding the clinical needs of the patients admitted to the Canterbury site and how it affects the staff skill mix required e.g. majority of patients needing two person assist, and also an issue of manual handling and rotation of deceased in the mortuary.

Some issues were similar to those raised in the staff survey, around difficulties relating to death certification and the mortuary, the consistency of measuring of complexity and decision making around site allocation. The steering group meetings appeared to provide a mechanism in which to identify, act upon, and monitor issues and concerns.

These meeting documents were collated and provided to members of staff taking part in a consensus focus group in the evaluation, to review as part of the information pack to aid discussion on the future of the nurse directed beds system.

### 3.5 Consensus focus group

The focus group conducted in November 2017, included twelve participants. The attendees included representatives from the medical, nursing and allied health professional teams, who either covered inpatient, community settings or both in Pilgrims Hospices.

Attendees were provided with an information sheet about the purposes of the focus group, how the data from the focus group would be used and that it would remain anonymous. Each member signed a consent form.

Attendees were sent the information produced as part of this evaluation prior to the meeting, covering the:

- Quantitative findings from our patient record system for the period from June 1st to 30th September 2017 comparing admissions, length of stay, number and percentages of deaths and discharges across all three IPU sites compared to the same months in 2016 (described in section 3.1)
- Findings from the staff survey (described in section 3.2)
- Findings from 'i want great care' service user survey data compared across site (described in section 3.3)
- information from the document review on any incidents and minutes from meetings since the introduction of nurse directed beds at the Canterbury site (described in section 3.4)

A synopsis of the findings was also briefly presented prior to the start of the focus group.

Before the start of discussions, focus group participants were asked to provide their view through an anonymous ballot on what they thought the future direction of nurse directed beds for the hospice organisation should be. They were asked whether they felt we had enough evidence to support the effectiveness of nurse directed beds, we should continue to collect more evidence, or whether we

should stop the programme altogether. The results to these three statements were as follows (table 6):

Table 6: Focus group response on the future of the nurse directed beds system

| Statement | Number of responses |
|---|---|
| We should continue the programme as it stands as we have enough evidence that it is effective | 0 |
| We should carry on as we are but we need better evaluation before confirming this is the best use of our resources | 7 |
| We should stop this programme in its current format as there is a better way to use our resources | 5 |

The outcome of the ballot was counted by the focus group facilitator and an independent. From the results it was clear that action was required to either gather further evidence or to stop the nurse directed beds programme in its current format and consider alternative use of resources. Both options were considered in the focus group discussions that followed.

During the focus group, the three key evaluation questions were provided to aid the discussion:

1. Can we identify complexity prior to admission into the hospice?

2. Do nurse directed beds in a standalone unit help to use resources more effectively, and if so how?

3. Do Nurse directed beds in a standalone unit produce similar outcomes and satisfaction to matched patients in other in patient units?

Consensus was reached that these questions could not be answered positively, and that there is a better way to use our resources than the nurse directed beds as a stand alone unit.

It was agreed that measuring patient complexity before admission is not easy or straightforward, and could be interpreted by staff differently. The complexity assessment tool focused on medical needs rather than capturing complexities around social needs which staff left they needed to consider. There were also a lot of competing factors regarding where a patient should receive care, all of which were highlighted in the survey. Additionally it was observed that some patients were admitted into hospital rather than the hospice in some cases due to the system if an appropriate bed wasn't available that met their level of need or if it was not in the patient and families chosen geographical location.

It was acknowledged that level of complexity after admission until death or discharge was not easily captured. Also regardless of this, it was raised that the needs of patients considered low complexity admitted to the nurse directed unit did change and some did need medical review and saw a doctor at the weekend. The skills and role of the ANP and MDT as a whole were acknowledged, and that there is a place for nurse directed beds with their leadership in the care of some patients, but that medical resources should be available at the point of need in any future model. A more integrated collaborative approach between the different professions bringing a mix of skills should be explored

further and how coverage of these resources could be provided and sustained across the three hospice areas.

It was acknowledged that enormous learning was gained from the process and a number of side benefits which the organisation should take forward that had improved practice or could improve practice in the future. A further meeting to capture these positive learning points was held on the 27th December 2017. Through the focus group process, looking back on what was learnt the following themes were identified:

Three site communication, collaboration improved e.g.

- Attending SITREP meant more staff were aware of what is going on as an organisation
- Learning by working on other sites and getting to know staff there
- More accommodating of each team's needs – less obvious boundaries
- Flexibility increased and looking outside the box
- Moving resources – medical, nursing and ANP to meet need e.g. moving people to different sites – working as one organisation instead of three
- Processes have been adjusted smoothly e.g. SITREP meeting earlier timing
- Admissions form helps hand over and awareness of admissions requests

Post death practice improved e.g:

- Awareness of reportable conditions for ANPs and ward staff
- Awareness that certificates may not be ready rather than raising expectations
- Introduced 72 hour standard
- Mortuary practice has changed e.g. change in viewing policy, times to fridge, speak earlier to families regarding funeral directors, useful to have discussions earlier

PHC Ward staff more proactive and taking more responsibility e.g.

- Checking that PRNs (medication prescribed to take as required) are in place and admission details not missed. This has led to empowering of ward staff
- Planning ahead to see what might happen and ensure all is in place
- Less out-of-hours calls as nurses more proactive
- "Look at drug chart - is all OK?" As a useful check

ANPs

- Better working ANP together – sharing skills, feedback from Masters, working alongside gives time for these discussions and knowing what each other is up to
- Clinical examination skills improved as practicing more
- Senior nurses working together, Band 6 /7 s and ANPs. ANPs acting as a resource to develop wider nursing skills

Concerns

- Geography and wishes of nearby PHC patients

## 4. Discussion

Pilgrims has demonstrated a willingness to look at case mix and how we use our resources effectively. We recognise the limitations and the haste in setting up the nurse directed unit which may have affected the findings.

The main findings related to two areas: those focussing on the nurse directed beds themselves and those related to organisational learning.

### *Nurse directed beds*

The results show support for the principle of using resources effectively and for the nursing team to be empowered and enabled to develop wider skill sets. However respondents were evenly split on whether the nurse led beds in a stand alone unit was a good thing or not.

Concerns regarding the nurse led unit related to the following:

- Travel time for patients and families when not admitted to the closest unit.
- Bed resources were not used effectively as times when the nurse led unit had capacity and the other sites were full.
- A perceived need for a full multidisciplinary team including medicine
- Death certificate completion, which required a medical review and could result in delay if that doctor wasn't available after death.

There proved to be difficulties with using a medical level of complexity measure to triage patients to an appropriate site. This was in terms of its accuracy, in its timeliness of decision making and taking other needs of patient and family into consideration. There were also difficulties around staff acceptability of the system relating to these issues.

There were other practical difficulties which needed to be overcome and has resulted in improved systems being in place. One concern about whether the concept could be taken forward was the bias in complexity being assessed by local teams so the patient could be admitted to their local site. Whilst demonstrating the care of the staff trying to keep their patients local, it does raise concerns.

### *Organisational issues*

Data was incomplete for many of the measures which raises the need for Pilgrims to improve documentation. A learning point for future evaluation and data capture is that collecting data through additional fields to complete in patient notes in usual clinical practice was not successful as a method to collect data on levels of intervention. It was found to be difficult to embed as part of clinical practice, when presented as an option to complete on electronic notes. The reasons for this are unclear, as staff were completed the patient record anyway. An alternative would have been to have a separate data recording sheet for the purpose of the evaluation which was completed daily on the wards.

Another limitation was that data on outcomes for patients who were referred but not admitted to the hospice were not captured and understood. For example the staff survey and focus group highlighted that some patients did not get admitted to the hospice because a bed was not available

in the right type of unit quickly enough, or in the patients preferred choice resulting in some patients refusing a bed that was offered. Collection and analysis of data on hospital admissions may have been helpful.

The value of evaluation is crucial to ensure key people's voices are heard and to come to measured judgements, but such evaluation needs to focus on outcomes and not just satisfaction. Perceptions can be very strong, for example about numbers and length of admission, and data is needed to prove or disprove this.

Great credit to all staff for their willingness to try the new model.

## 5. Conclusions

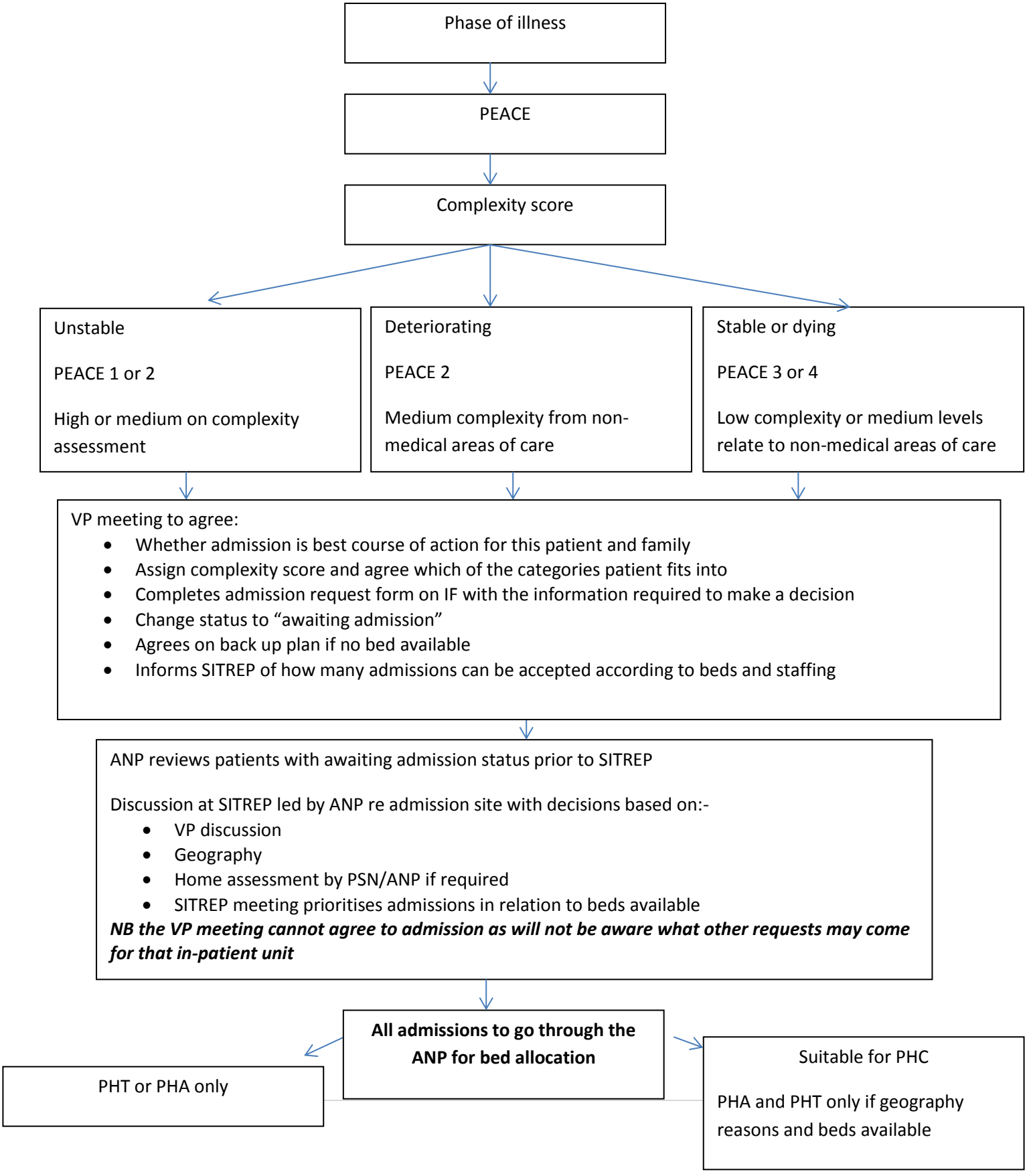
The agreed outcome was the stand alone nurse directed unit was not a good use of Pilgrims Hospices resources. Whilst the concept was agreed the model needed to be adjusted: perhaps more integrated beds at each site, looking at having nurse and advanced nurse practitioner (ANP) directed alongside medically directed beds.

We look forward to reporting back on this next step in due course.

# Appendices

## Appendix 1

### Admission decision-making tool for Pilgrims Hospice



## Appendix 2 – Level of Intervention tool

| Level | HIGH | MEDIUM | LOW |
|---|---|---|---|
| **Expectation of input** | • At least daily face-to-face medical reviews | • Face-to-face medical reviews every 1-2 days plus daily case note review | • Occasional face-to-face medical reviews, once or twice a week |
| **Complexity of medical / symptom assessment** | • High, to reach a new diagnosis, establish any reversibility / prognosis, to exclude urgent need to go to hospital | • Moderately complex, to reach a diagnosis, establish any reversibility / prognosis, to exclude non-urgent need to go to hospital | • Low complexity, to confirm diagnosis/ prognosis, to exclude any reversibility and any need for more detailed medical review |
| **Complexity of medical decision making** | • High, to inform, support and guide discussions and agree changes to treatment plans / new ceilings of care | • Moderately complex, to inform, support and guide discussions and agree if changes to treatment plans / ceiling of care are needed | • Low complexity, to support existing discussions and treatment plans / ceiling of care |
| **Rate of change of overall condition** | • Day-to-day changes, possibly reversible causes or possibly imminently dying | • Deteriorating but, no significant change to the illness trajectory | • Relatively stable overall condition |
| **Rate of change of symptoms** | • New or day-to-day changes | • Week-to-week changes | • Relatively stable |
| **Nature of symptoms** | • Severe and / or acute<br>• Atypical, complex or refractory<br>• Unclear and / or multiple symptoms | • Moderate to severe<br>• Atypical, complex<br>• Multiple symptoms or | • Relatively manageable (clear aetiology, responding to interventions as expected) |
| **Nature of treatment regimens** | • Complex, atypical | • Complex, but expected treatment | • Relatively stable medical plan (few / no changes needed / planned) |
| **Level** | **HIGH** | **MEDIUM** | **LOW** |

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