










Review of urgent temporary changes at the Friarage Hospital

Report for Rishi Sunak MP

June 2019



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Key messages

- The Friarage has the **smallest A+E in England. Multiple hospitals** have changed their urgent care service model over the last ten years, frequently because of the **challenge of recruiting and retaining the staff required** to work in A+E and intensive care in small and/or rural settings. **These hospitals all had larger A+Es than the Friarage yet still had similar challenges**
- National clinical guidance dictates the appropriate staffing model for A+E. Key staffing challenges have meant that the Trust has been **unable to consistently meet these staffing requirements** leading to a temporary changes at the Friarage
- The Trust has been **unable to attract key critical care doctors** needed to run an A+E because of **increased specialisation of the profession**, resulting in a lack of generalist anaesthetists with the appropriate skillset to work at a small hospital like the Friarage
- The Trust has made good efforts to overcome these recruitments challenges. Whilst it could have made further attempts to recruit from overseas, it is unclear whether this would have guaranteed a sustainable solution
- The new model of care reflects an **innovative approach** which moves beyond the typical Urgent Treatment Centre model and **maximises access to care for local people**. The clinical decision unit enables many more patients requiring hospital admission to be cared for locally in comparison to a typical Urgent treatment Centre
- The new Urgent Treatment Centre will **enable children who are currently treated elsewhere to be seen at the Friarage; to date an additional 39% of children have been treated (equivalent to about 1500 children/year)**
- **Only approximately 10%** of patients attending the current A+E at the Friarage will be affected by the change. Patients with time critical illnesses **will not be affected** as these patients are already treated at James Cook or Darlington hospitals
- Learning from other hospitals that have changed their A+E provision shows that despite a small increase in patient ambulance travel time, this was **not associated with increased patient mortality**
- Implementing the new model of care is **dependent on having adequate workforce to deliver**. Without this, there is a risk that opening hours of the Urgent Treatment Centre may need to be reduced leading to the Friarage only being able to care for c.70 - 80% of its current A+E patients as opposed to the 90%. However **a reduction in UTC opening hours would not impact on hospital admissions** which are dependent on the opening hours of the clinical decision unit (open 12 hours/day)
- Changes at the Friarage will have **minimal impact** on neighbouring hospitals James Cook and Darlington

Executive summary (1/5)

Overview

- CF was commissioned to review the temporary changes to the Friarage hospital's urgent and emergency care services. This review seeks to answer the question: ***Is the change to the Friarage hospital's urgent and emergency care services the most appropriate response in the current context, or should it be exploring alternative models?***
- In answering this question, the review takes a four part approach:
 1. Understanding the Friarage's context
 2. Assessment of the Friarage's case for change: understanding the challenges faced; the extent of the efforts made to solve these challenges; and a review of whether the Trust Board was reasonable to implement a temporary closure
 3. Assessment of the new model of care, including: whether the model fully addresses the issues identified in the case for change; whether the assumptions underpinning the model are robust; and exploration of the associated risks and mitigations
 4. Identification of opportunities to enhance the model based on learning both from the temporary closure and wider learning from national and international case studies
- **The review concludes that given national clinical guidelines, the Trust has articulated a clear case for change and that the temporary model of care will enable the Trust to deliver safer care in the context of its workforce challenges**
- Based on learning from the national and international case studies and from the temporary closure, a number of recommendations are made to improve delivery of the model of care and to maximise the opportunities to repatriate patients back to the Friarage. In addition, a number of recommendations are made which could be taken forward at a national level to support sustainable emergency care in small hospitals

Friarage context

- The Friarage hospital is a small district general hospital with 95 inpatient beds, serving a rural population of around 144,000 people across Hambleton and Richmondshire. It serves a population which is growing slowly but ageing
- The hospital has a large rural catchment area, which includes residents in the Dales (e.g. Hawes) who currently have to travel > 1hr to reach the hospital
- **The Friarage has the smallest A+E department in England.** A+E attendances have been decreasing over last 5 years by 5% per annum
- Faced with increasing workforce challenges which pervade despite recruitment efforts, the Friarage has been developing a business case for a new emergency care model over the last two years

Executive summary (2/5)

Wider context

- In general across the UK, small hospitals face challenges recruiting and retaining clinicians including A+E doctors and anaesthetists – many have developed different models of emergency care provision as a consequence
- **Regional and national challenges are impacting on the ability of small hospitals such as the Friarage to recruit and retain clinicians required to deliver emergency services**
- A drop in Indian trained doctors working in the UK may be having an impact on the ability of small hospitals to recruit and retain anaesthetic doctors

Review of the case for change

- The Trust's case for change is centred on significant and ongoing workforce challenges that are impacting the ability to deliver urgent and emergency care to a safe standard. The medical Royal Colleges have increasingly driven a focus on sub-specialisation of doctors in an attempt to improve patient care
- The Friarage has struggled to fill A+E medical and nursing and anaesthetic and critical care staffing rotas required to meet these standards
- The Trust has made good efforts to resolve these challenges but these have not resulted in a sustainable solution. **Advice from a specialist recruitment agency indicates that the Trust could have potentially considered engaging a specialist international recruitment agency, although it is unclear if this would have resulted in a sustainable solution**
- Over recent months, workforce challenges have escalated, and in this context this review concludes that the Trust Board was reasonable to implement a temporary closure on the grounds that the existing model of care was at risk of becoming unsafe

Review of the new model of care (1/2)

- The Friarage has developed a new emergency care model which aims to resolve the issues identified in the case for change
- **The model of care reflects an innovative approach which moves beyond the Urgent Treatment Centre model and maximises access to care for local people. The Clinical Decision Unit enables many more patients requiring hospital admission to be cared for locally in comparison to a typical Urgent Treatment Centre**
- Independent clinical review of the new model of care indicates that it is able to deliver a safer model of care in the context of the current staffing challenges
- **Learning from the first two months of the temporary closure indicates that 87% of current A+E patients will continue to be for cared for at the Friarage. Additionally 95% of total patients cared for at the Friarage (including admissions and outpatients will continue to be cared for there)**
- Implementing the new model of care is dependent on having adequate workforce to deliver. The Trust needs to have an increased focus on developing existing nurses as emergency nurse practitioners and recruiting new staff where required

Executive summary (3/5)

Review of the new model of care (2/2)

- Without this, there is a risk that **opening hours of the Urgent Treatment Centre may need to be reduced, leading to the Friarage only being able to care for 73- 82% of its current A+E patients as opposed to the 90%** (depending on level of reduction in opening hours). However **a reduction in UTC opening hours would not impact on hospital admissions** which are dependent on the opening hours of the clinical decision unit (open 12 hours/day)
- CF analysis indicates that the assumptions made regarding the impact of the new model of care on the Yorkshire Ambulance Service are valid and this is supported by early data from the temporary closure
- CF analysis indicates that the assumptions regarding the impact of the new model of care on nearby hospitals James Cook and Darlington are robust. **The analysis suggests a relatively small level of impact compared to baseline (1% increase in A+E attendances and 2% increase in emergency admissions at each hospital). Data from the temporary closure indicates that the impact to date at the James Cook has been less than predicted**
- Review of the Trust's planning suggests that proposed changes to patient pathways will maintain patient safety
- **Patients who have life threatening illnesses where rapid access to medical care is required will not be affected by the new care model as these patients are already treated by specialist teams at James Cook and Darlington. This includes patients who have had major trauma, pregnancy emergencies, heart attacks and strokes.**
- CF analysis of the impact on patients travel times indicates that 12% of patients who have to attend another A+E will have an a **travel time >40 mins** (226 additional patients/year compared to current) with 0-1% (Up to 19 patients/year) having to travel >1hr. **Patients who have to attend another A+E will have to travel an additional 0-30mins (average 13.5mins).** Evidence from A+E closures elsewhere shows a small increase in travel time does not have a detrimental effect on mortality
- The review supports the Trust's hypothesis that **the new Urgent Treatment Centre will enable children not requiring admission who are currently treated elsewhere to be repatriated back to the Friarage. Early data indicates that this could amount to an additional 39% of children or 4 children/day. This is equivalent to about 1500 children/year**
- The review concludes that the Trust has clear plans in place to support Friarage staff impacted by the temporary closure
- A number of recommendations are made to support the successful implementation of this model and further mitigate potential risks

Executive summary (4/5)

Reflections and learning from elsewhere (1/2)

- **Only 6 hospitals in Scotland (none in England and Wales) have maintained smaller Type 1 A+Es than the Friarage. These all serve communities significantly more remote than the Friarage**
- CF identified 17 hospitals which changed their A+E provision between 2009-2017. **These all had larger attendances than the Friarage.** These hospitals changed their provision for one or more of the following reasons:
 - **The challenge of recruiting staff to work in these small and/or rural settings (particularly A+E and intensive care doctors). This was despite these hospitals being larger than the Friarage**
 - Many services were already being diverted away from these hospitals;
 - The challenge of delivering high quality emergency services in small settings and in particular maintaining the skills of staff when not seeing many cases;
 - View that more effective service could be delivered in centralised, larger centres;
- **When considering local services versus centralised services, the evidence indicates that a balance needs to be struck between patient access to local services and access to specialist medical staff**
- Relevant learning from an academic review of five English hospitals which changed their emergency services between 2009-2011 includes:
 - The case for changing the A+E provision in small and rural hospitals across the country has been similar
 - **Despite an increase in average patient ambulance travel time, this was not associated with increased patient mortality**
 - Based on these comparators, the impact of Friarage's proposed model of care on surrounding hospitals is likely to be less than predicted
- The Trust highlighted learning from Lymington, a hospital which has managed to continue to treat a range of emergency conditions despite not having anaesthetic support. Review of lessons from this model indicates that:
 - The hospital is able to admit some patients for emergency treatment in the absence of an intensive care unit and on-site anaesthetist. It achieves this through a medical consultant-led model which enables careful screening of patients
 - An on call-junior doctor at night time is able to treat the range of medical emergencies and arrange for a patient to be transferred to a specialist hospital if required

Executive summary (5/5)

Reflections and learning from elsewhere (1/2)

- Learning from the Canadian and Australian experience of maintaining emergency care in rural settings suggests the Trust could:
 - Explore how primary care, particularly in more remote areas, can be supported to identify deterioration at an earlier stage and where appropriate to manage patient deterioration in the community
 - Develop opportunities to train local GPs to staff acute medicine rotas
- The new care model provides the potential to repatriate some adults back to Friarage for ongoing treatment and rehabilitation. This would help to mitigate the impact of the closure on travel time for both patients and their carers. However this opportunity needs to be further developed

Conclusions

- The review concludes that given national clinical guidelines, the Trust has articulated a clear case for change: It has struggled to adequately staff rotas against required standards to ensure patient safety. It has made reasonable attempts to resolve these and to avoid an unplanned emergency closure. However, **potentially** engagement of a specialist international recruitment agency may have supported the Trust to overcome some of their workforce challenges
- The review concludes that the new emergency care model delivers safer care in the context of the current workforce challenges. The assumptions underpinning its successful delivery are considered to be robust, but there are a number of recommendations proposed to enhance successful implementation (following page). The review finds that the Trust has considered the risks associated with the new model and has put in plans to limit these. It makes a number of recommendations to support this
- **The model of care reflects an innovative approach which moves beyond the Urgent Treatment Centre model and maximises access to care for local people. The clinical decision unit enables many more patients requiring hospital admission to be cared for locally in comparison to a typical Urgent treatment Centre.**
- Learning from the UK and international case studies should be considered should there be a decision to make the temporary closure permanent
- **There are also opportunities to maximise the potential of the new model to repatriate emergency care of children with non-life threatening situations and adults requiring ongoing hospital admission back to the Friarage, which should be considered when designing future changes**
- **A number of recommendations are made which could be taken forward at a national level to support sustainable emergency care in small hospitals**

Summary of recommendations

Supporting the model's successful implementation

1. The Trust needs to focus on **retaining and developing** existing Friarage nurses as **emergency nurse practitioners**
2. The Trust should consider a **national recruitment drive** for emergency nurse practitioners
3. If the Trust is unable to sustainably staff the Urgent Treatment Centre 24/7; a **16 hour opening would limit impact** on patient access
4. The Trust should carry out **detailed planning with James Cook and Darlington** and the **Yorkshire ambulance service** to ensure that the ongoing impact of the changes can be managed effectively during predicted busy periods. This includes having adequate intensive care capacity
5. The Trust should collaborate closely with the Yorkshire ambulance service to ensure that **ambulances bring appropriate patients to the Friarage** rather than bypassing the site
6. Ongoing public communication will be vital to ensure that appropriate patients continue to attend the Friarage as opposed to choosing to attend elsewhere

Strengthening the model

7. The Trust should ensure that the Urgent Treatment Centre has the **capacity to manage the larger than modelled number of children attending**. This would help to mitigate the impact of the closure on travel times by enabling other patients (and their carers) to have care closer to home
8. The Trust should model and plan for the **potential opportunities to repatriate patients** from Darlington and James Cook and develop clear pathways with primary and community care to support this. This would enable patients having rehabilitation to be cared for closer to home and would limit the impact of the new care model on surrounding hospitals
9. The Trust should maximise the opportunity to **increase the amount of planned surgery carried out at the Friarage site**

Future opportunities

10. The Trust could explore how it can **support primary care** to identify deterioration at an earlier stage and manage patient deterioration in the community
11. The Trust could consider further exploring opportunities to **train local GPs** to staff acute medicine rota
12. The Trust should learn from Lymington's success and develop and **promote the new Friarage emergency care model as an innovative model** of how to provide emergency care in small, rural hospitals. This will help to support workforce recruitment and retention

Recommendations which could be taken forward at a national level to support delivery of sustainable emergency care models in small hospitals

Adapt clinical standards

- Work with the Royal Colleges of Emergency Medicine, Royal College of Anaesthetists and Faculty of Intensive Care medicine to review whether **clinical workforce guidelines and standards can be adapted for small hospitals** to enable a balance to be struck between access to specialist care and access to local support

Flexibility around staffing models

- Develop guidance with the Royal Colleges and British Medical Association on alternative approaches for low intensity, increased hours rotas for rural settings. This would enable out of hours rotas to be covered by fewer staff when the intensity of work is low

Promote training opportunities in small hospitals

- Work with Health Education England and the Royal Colleges to find ways to **enable doctors in training to spend a proportion of their training working in small hospitals**. At present many small hospitals including Friarage do not have A+E or anaesthetic trainees because of a perceived lack of support
- Work with the Medical Schools Council to ensure that all **medical students have adequate exposure to small rural hospitals** in their training

Increase availability of generalists to cross-cover rotas

- Work with the Royal College of General Practice and Royal College of Physicians to develop **opportunities to train General Practitioners to support acute medicine** and emergency departments in hospitals
- Explore with Health Education England and the Royal Colleges opportunities for **specialists to be “credentialised” in wider skills** and explore new approaches to job planning

Targeted national workforce strategy

- Problem solve with the Medical Schools Council, the Royal Colleges and Health Education England **targeted opportunities to resolve emergency care and anaesthetic specialist training vacancies**
- Review potential barriers to recruitment of **specialist trainees from overseas**

Financial support

- Whilst financial concerns have not been the driver of changes at the Friarage, small hospitals typically face financial challenges associated with lower throughput volumes. Explore opportunities with national and local regulators to provide a **supplementary block payment to Trusts to support small hospitals** to maintain emergency services
- Explore potential for financial and non-financial incentives to support **recruitment and retention** of clinicians in small hospitals

Introduction

CF was commissioned to review the temporary changes to Friarage hospital's urgent and emergency care services (1/2)

In the context of the temporary closure of the Friarage hospital A+E, the local MP Rishi Sunak commissioned Carnall Farrar (CF) to conduct an independent review. The review was conducted by Dr Anne Rainsberry, Dr Jo Andrews, Alice Caines and Dr Simon Munk between April and June 2019 (see appendix for biographies).

The review seeks to answer the following question:

Is the change to Friarage Hospital's urgent and emergency care services the most appropriate in the current context, or should it be exploring alternative models?

In answering this question, the review takes the following approach:

Understanding the context

- Review of the Friarage's context
- Review of the wider regional, national and international context

Review of the case for change

- What were the challenges facing the Trust?
- Have reasonable attempts been made to resolve these challenges?
- Did the challenges escalate to an extent that the Board was reasonable to decide to temporarily close the A+E?

Review of the model of care

- Does it address the issues highlighted in the case for change?
- Are assumptions underlying its successful delivery robust?
- Have the wider risks associated with implementing the new model been adequately assessed?

Learning from elsewhere

- What are the lessons from other hospitals which have faced similar challenges to the Friarage in the UK and overseas?
- How can these lessons inform Friarage's new model of care?
- Are there other opportunities to enhance or maximise the new model of care?

CF was commissioned to review the temporary changes to Friarage hospital's urgent and emergency care services (2/2)

The review focuses on understanding how the Friarage can minimise changes to the services it currently provides. It does **not** seek to explore alternative models of healthcare delivery across the whole region. In addition, the review is based on the current wider context Friarage is situated within. Any future changes to the environment e.g. to other neighbouring hospitals could impact on the conclusions drawn.

The review made use of the following sources:

- Trust papers
- Publicly available papers and of findings of external clinical reviews
- Interviews with the Trust and wider stakeholders
- Independent analysis based on publicly available data and data provided by the Trust
- Available data and learning from the first two months of the closure

A full list of data sources can be found in the Appendix.

Local context

The Friarage Hospital is one of the smallest district general hospitals in the country, serving a rural population of around 144,000 people

The Friarage Hospital came under the management of South Tees in 2002 which became a NHS Foundation Trust in 2009. South Tees Hospitals NHS Foundation Trust operates from two main hospital sites:

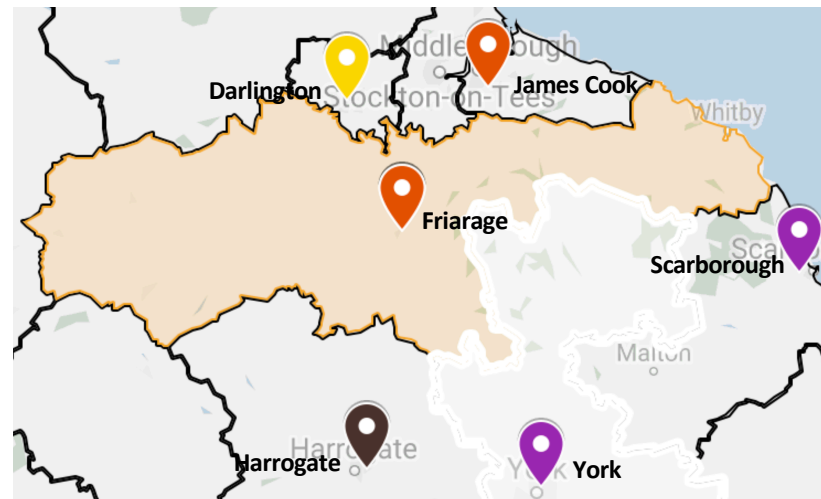
- **James Cook hospital in Middlesbrough:** a tertiary site with a major trauma centre and specialist services
- **The Friarage hospital in Northallerton:** offering district general hospital services

The lead commissioner for the Friarage is Hambleton, Richmondshire and Whitby Clinical Commissioning Group (HRW CCG).

Current services provided at the Friarage site include:

- Accident and emergency
- Intensive care/high dependency diabetes respiratory medicine
- Endoscopy
- Chemotherapy
- Rheumatology
- Elective orthopaedics and plastic surgery
- Pathology
- Surgery (including lung cancer, urology, colorectal)
- Midwifery-led unit and short-stay paediatric assessment unit
- Urology
- Pain services
- Wide range of diagnostics and support functions

Location of Friarage and its surrounding hospitals



Key



South Tees NHS Foundation Trust



County Durham and Darlington NHS Foundation Trust



York Teaching Hospital NHS Foundation Trust

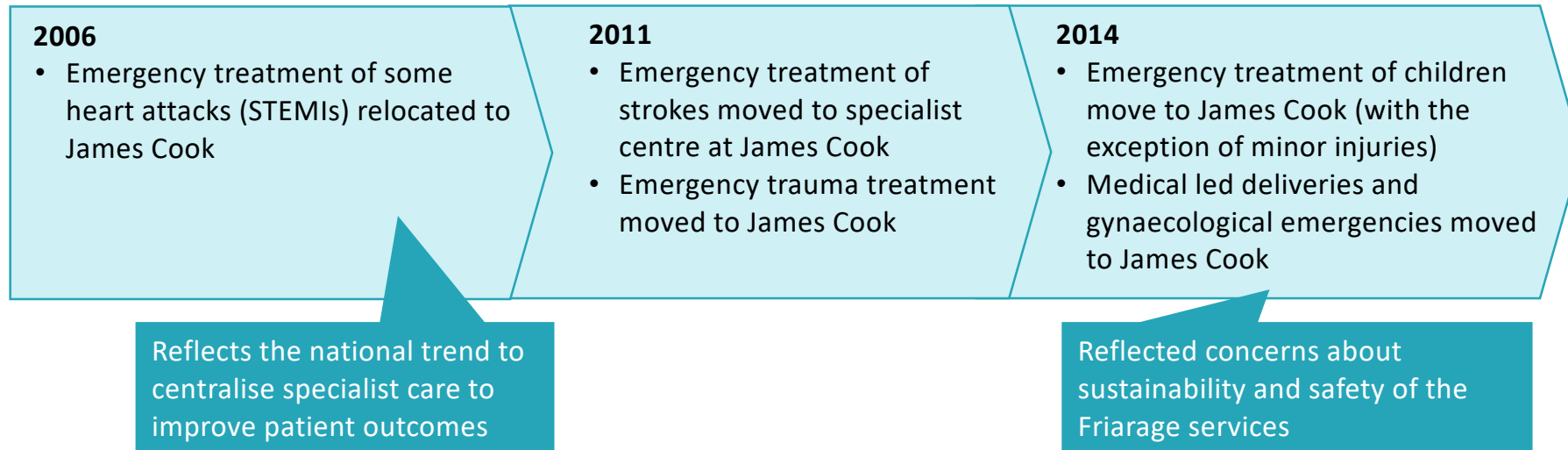


Harrogate and District NHS Foundation Trust



Hambleton, Richmondshire and Whitby Clinical Commissioning Group

Like most small district general hospitals, Friarage has reduced the range of medical emergencies that it can treat over the last 13 years



Despite these changes, the Trust has continued to operate as a “**Type 1 A+E**” defined as a emergency department which is consultant led, operates 24/7 with full resuscitation facilities.

Over the same period, new services have been developed on the site:

1. Development of a **combined medical and surgical ambulatory care service** which has enabled more emergency patients to be treated on the same day and return back home with enhanced support in the community
2. Relocation of planned orthopaedic surgery
3. The Sir Robert Ogden Macmillan Centre, a dedicated chemotherapy and oncology outpatients centre

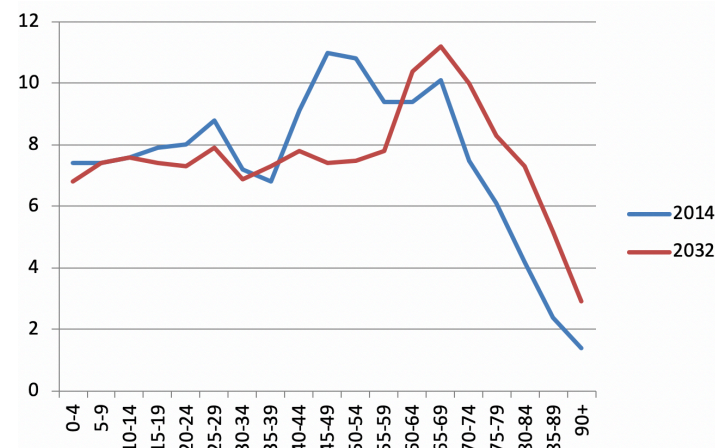
SOURCE https://www.datadictionary.nhs.uk/data_dictionary/attributes/a/acc/accident_and_emergency_department_type_de.asp

The Friarage serves a population which is growly slowly but ageing

- The Friarage catchment population benefits from health outcomes that are better than the national average in many areas
- Life expectancy at birth is 80.6 years for men and 84.3 years for women, both above the national average. Life expectancy varies for men and women considerably across North Yorkshire (between the most affluent and the most deprived)
- The potential years of lost life from conditions considered amenable to health care are lower across the CCG for males and females than that observed nationally, reflecting the generally better levels of health enjoyed by much of the CCG population
- The rate of emergency admissions to a hospital bed for acute conditions that should not usually require hospital admission is higher for Hambleton, Richmondshire and Whitby CCG compared to the national rate (1446 per 100,000 locally compared to 1273 per 100,000 population nationally). **This indicates that potentially more patients could be treated in the community as opposed to requiring a hospital bed, and current levels of hospital activity could be higher than is required**

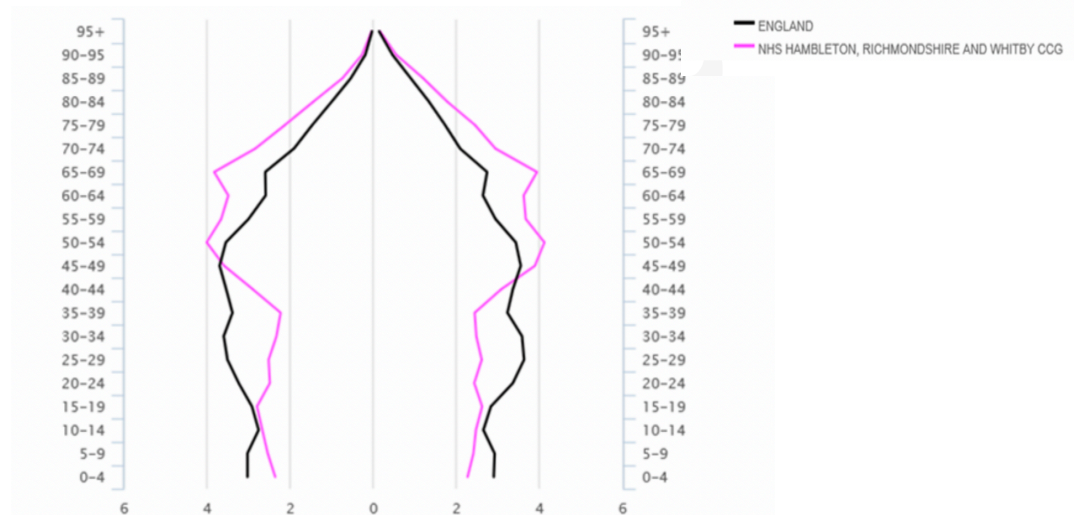
Hambleton and Richmondshire population projection to 2032

Population in 000s



Age distribution in Hambleton, Richmondshire and Whitby CCG compared to England (2015)

Population %

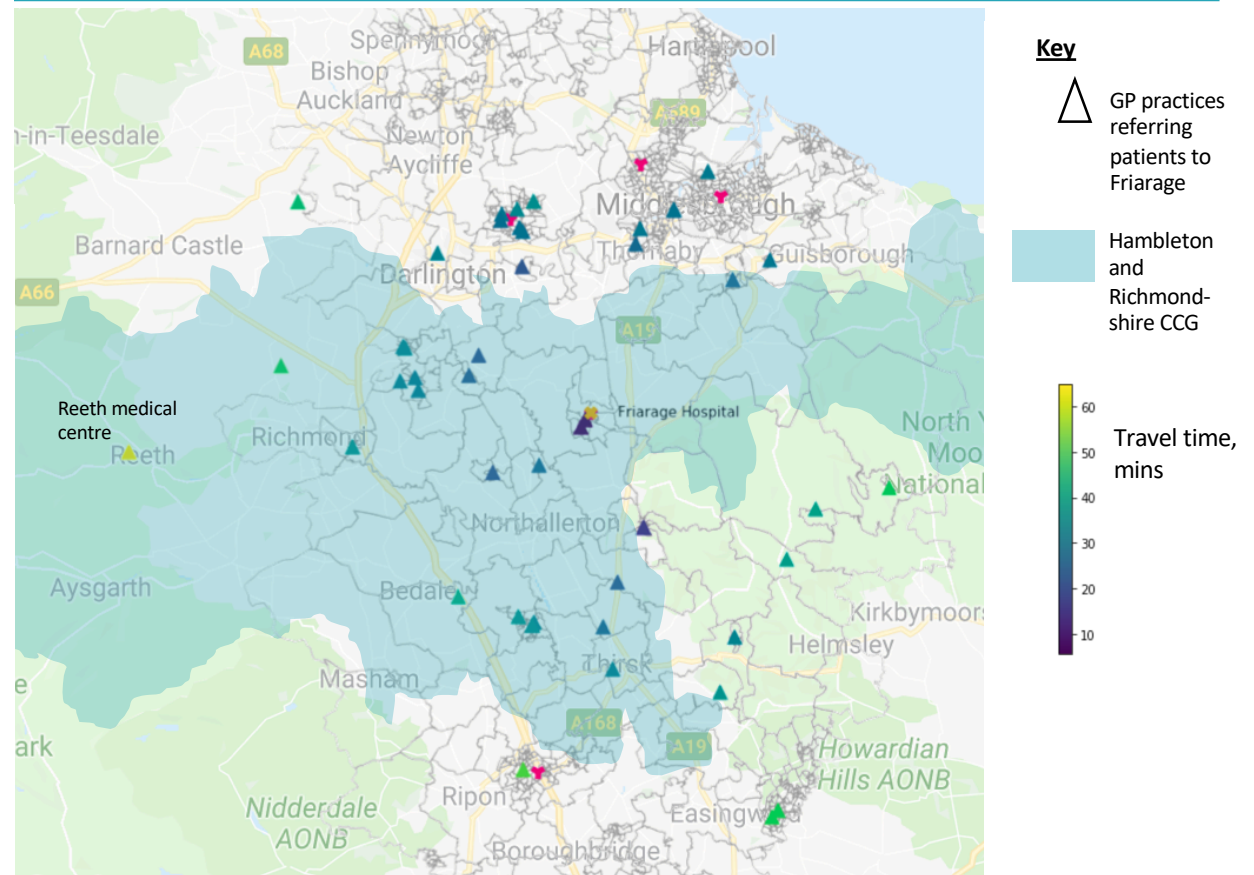


SOURCE Trust Case for change, 2017

The Friarage has a large rural catchment area, including a small number of patients in the Dales who have to travel > 1hr to the hospital

- The catchment area for the Friarage hospital covers an area of 1,000 square miles, extending from the North Yorkshire moors to the central Pennines, the borders of York district in the south to the borders of Darlington in the north
- Outside of the urban areas and market towns, the local area is sparsely populated
- 70.6% of the population live in rural areas and 15.3% of the population live in areas which are defined as super sparse (>10% within the national parks) (less than 50 persons/km)

Travel times to the Friarage from top referring GP practices
Car, off peak

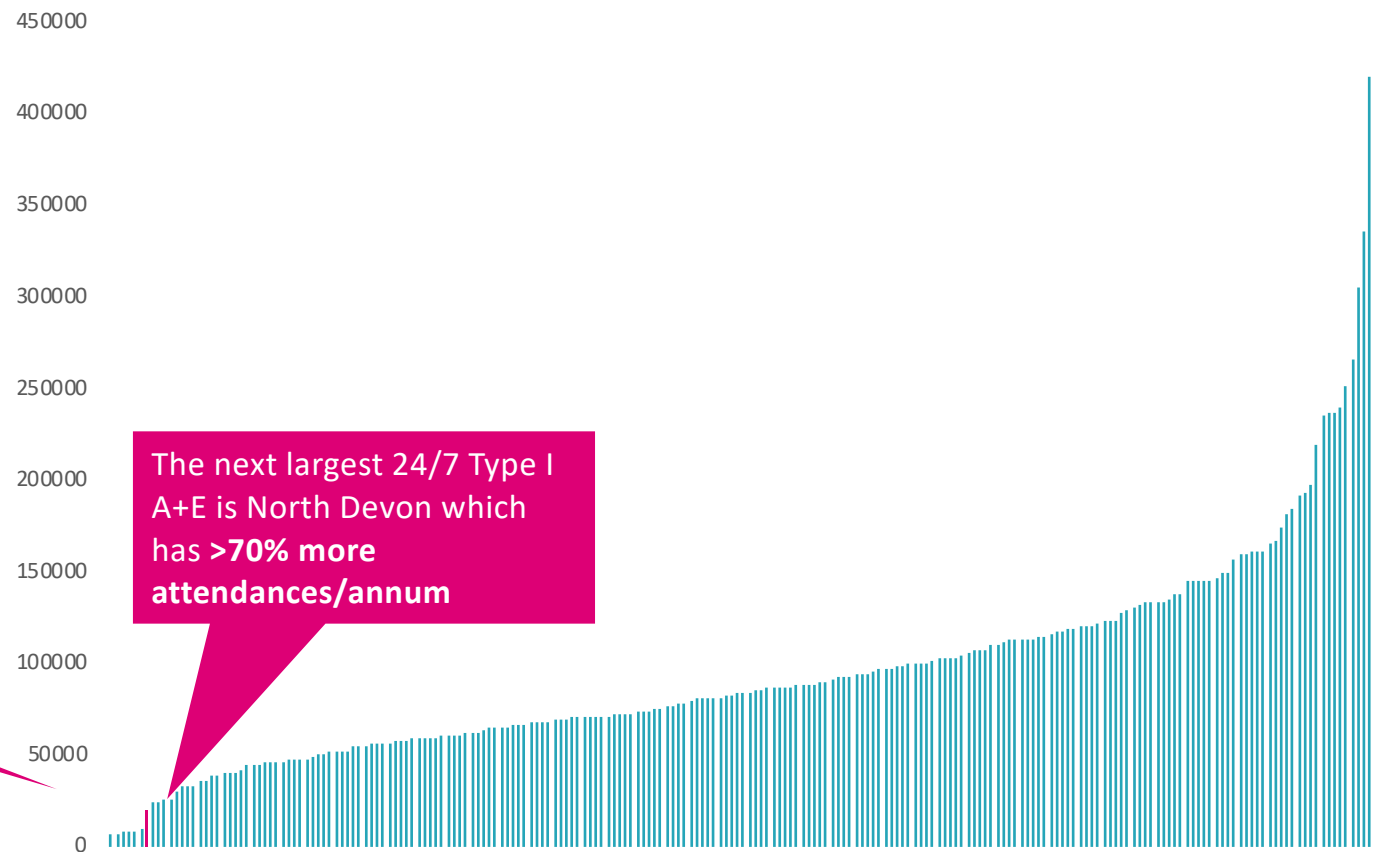


SOURCE:HED data and google maps

The Friarage has the smallest A+E department in England, seeing fewer than 19,000 attendances per year

- The Friarage sees 18,800 A+E attendances/annum
- It is the smallest **Type 1 A+E in England and the 7th smallest in the UK**
- **The six smaller A+Es are all in Scotland and serve very remote communities**
- The next largest identified A+E in England is Grantham (24.3K/annum), which is only open 8-18:30, and North Devon which is 24/7 (c. 32.5K/annum)

Attendance at Type 1 A+Es across UK
Yearly attendance



Friarage has 18,800 attendances/annum

The next largest 24/7 Type 1 A+E is North Devon which has >70% more attendances/annum

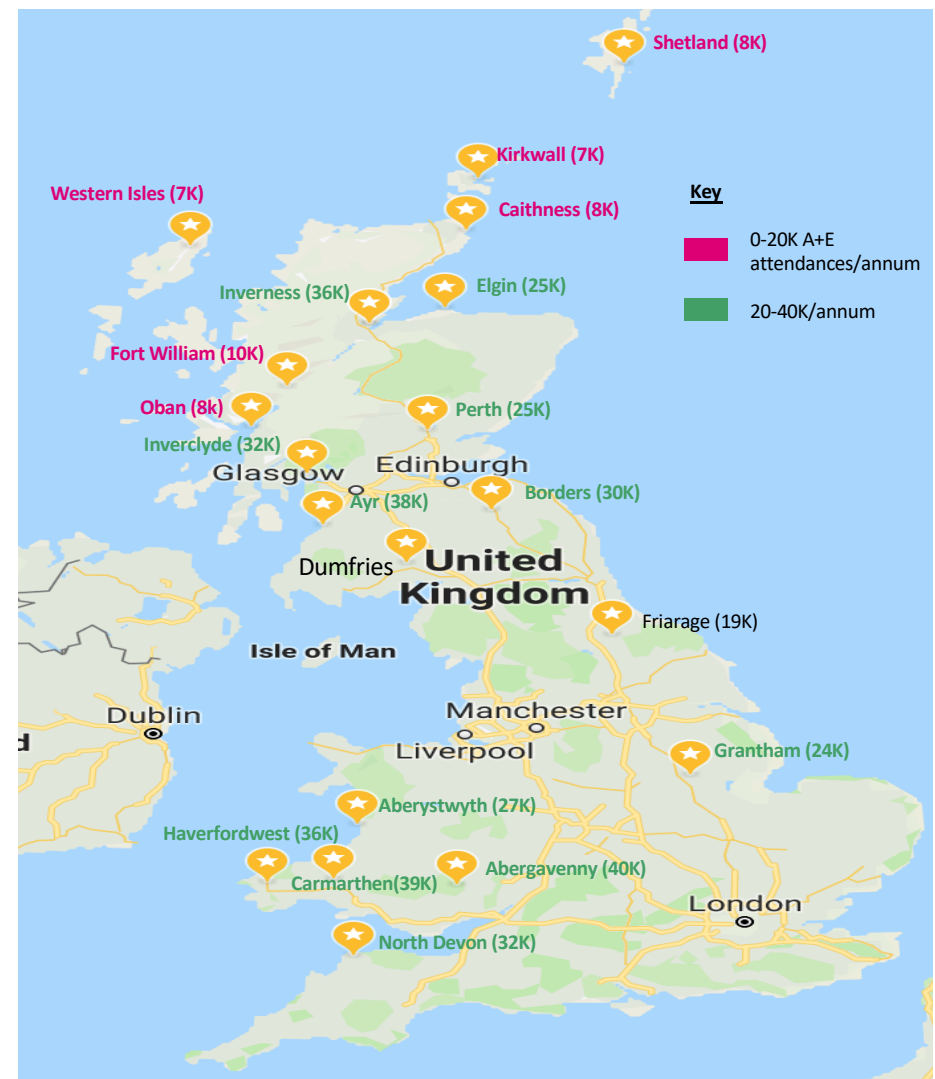
SOURCE: A+E attendances 2016/17 from HED data, Scotland ISD; Stats Wales. NB Some NHS Trusts do not report attendance by A+E type

Only extremely small remote hospitals with very long travel times to the next nearest A+E have maintained Type 1 A+Es of a similar size to the Friarage

- **Friarage has the smallest Type 1 A+E in England and Wales with under 20,000 attendances/annum**
- There are six smaller A+Es in Scotland all of which serve extremely remote communities with long travel times to the next nearest A+E. Three are on remote islands
- These UK remote hospitals are dependent on the availability of senior medical staff with a breadth of skills who have been able to frequently work on call (see Fort William case study on following page)
- CF has additionally identified only 12 A+Es which have similar yearly attendance to Friarage of 20-40,000 (6 in Scotland; 4 in Wales and 2 in England)
- These all serve remote communities with long travel times to the next nearest A+E.

Hospital	Travel time to next Type 1 A+E
Fort William	1hr 45mins
Oban	1hr 10mins
Caithness	2hr 30
Friarage (for comparison)	35mins

UK Type 1 A+Es of comparable size to Friarage
(Yearly attendance, to nearest 1000)



SOURCE: A+E attendances 2016/17 from HED data, Scotland ISD; Stats Wales. NB Some NHS Trusts do not report attendance by A+E type; Google maps travel time anal

Fort William is 70 miles from the next nearest acute hospital and as such has needed to develop a flexible model of emergency care delivery

Context

- The Belford Hospital at Fort William has a resident population of 28,000, but a large visiting tourist population. It is 70 miles from the next nearest secondary care facility

Care model

- Medical and surgical care is integrated and run as one unit
- Medical staff are on call frequently and required to be very flexible, but the lower intensity of work makes this more manageable. This approach is enjoyed by the team but it is somewhat different from what other senior staff might expect in their roles.
- Senior staff are able to work across traditional boundaries, so, for example, emergency patients might be seen by a surgeon, physician or anaesthetist for their initial assessment.
- Senior physicians have relationships with and surgeons have visiting appointments at major centres. This enables both groups to keep their skills up to date
- Telemedicine and visiting specialists also provide support to the service
- A key component of the model is the daily consultant-led MDT including social care. Patients requiring major interventions, critical care, etc., are stabilised and transferred, but in practice only 6% of patients are transferred out

Challenges

- The Fort William model is dependent on recruiting senior medical staff with a rare set of general medical, surgical and leadership skills
- These senior professionals need to be willing to trade more frequent time on call for a lower level of intensity of work and to work very flexibly with frequent multi-tasking
- Challenge of ensuring that rotas are compliant with clinical guidelines and with working time regulation

Learning for Friarage

- Emergency care can be sustained in rural settings but is dependent on recruitment and retention of generalist staff
- The daily consultant-led MDT is a similar model to the clinical decision unit model which the Friarage has developed and learning could be shared between the two sites

SOURCE: Acute care in remote settings: challenges and potential solutions; Nuffield Trust July 2016

Across England multiple hospitals facing similar challenges to the Friarage have had to change their A+E provision over the last ten years

- CF analysis has identified 17 English hospitals which downgraded their A+E provision between 2009-2017
- Two of these A+Es, Grantham and Stafford, have to date remained open but with limited opening hours
- According to published strategic health plans, 24 further existing hospitals face potential changes to their current A+E services
- The affected hospitals changed their A+Es from Type 1 units to alternatives for a combination of the following reasons:
 - **The challenge of recruiting staff to work in these small and/or rural settings (particularly A+E and intensive care doctors)**
 - Many services were already being diverted away from these hospitals
 - The challenge of delivering high quality emergency services in small settings and in particular maintaining the skills of staff when not seeing many cases
 - View that more effective service could be delivered in centralised, larger centres

English hospitals which have downgraded their A+E provision since 2009



SOURCE: HSJ review; CF review of UK media sources

Despite being larger than the Friarage, many hospital have had to change their model of emergency care due to staffing shortages

Hospital	Year provision changed	A+E attendance year prior to change in provision
Friarage		18,800
Bishop Auckland	2009	36,000
Central Middx	2014	14,000
Chase Farm	2013	>73,000*
Grantham	2016	29,000
H Hempstead	2009	44,000
Hammersmith	2014	19,000
Hartlepool	2011	49,000
N Tyneside	2015	>31,000*

Hospital	Year provision changed	A+E attendance year prior to change in provision
Newark	2011	32,000
Rochdale	2011	68,000
Rugby	2013	>26,000*
Sidcup	2010	>40,000 *
Trafford	2013	31,000
Wansbeck	2015	80000
Welwyn	2013	22,000
Wycombe	2012	26,000

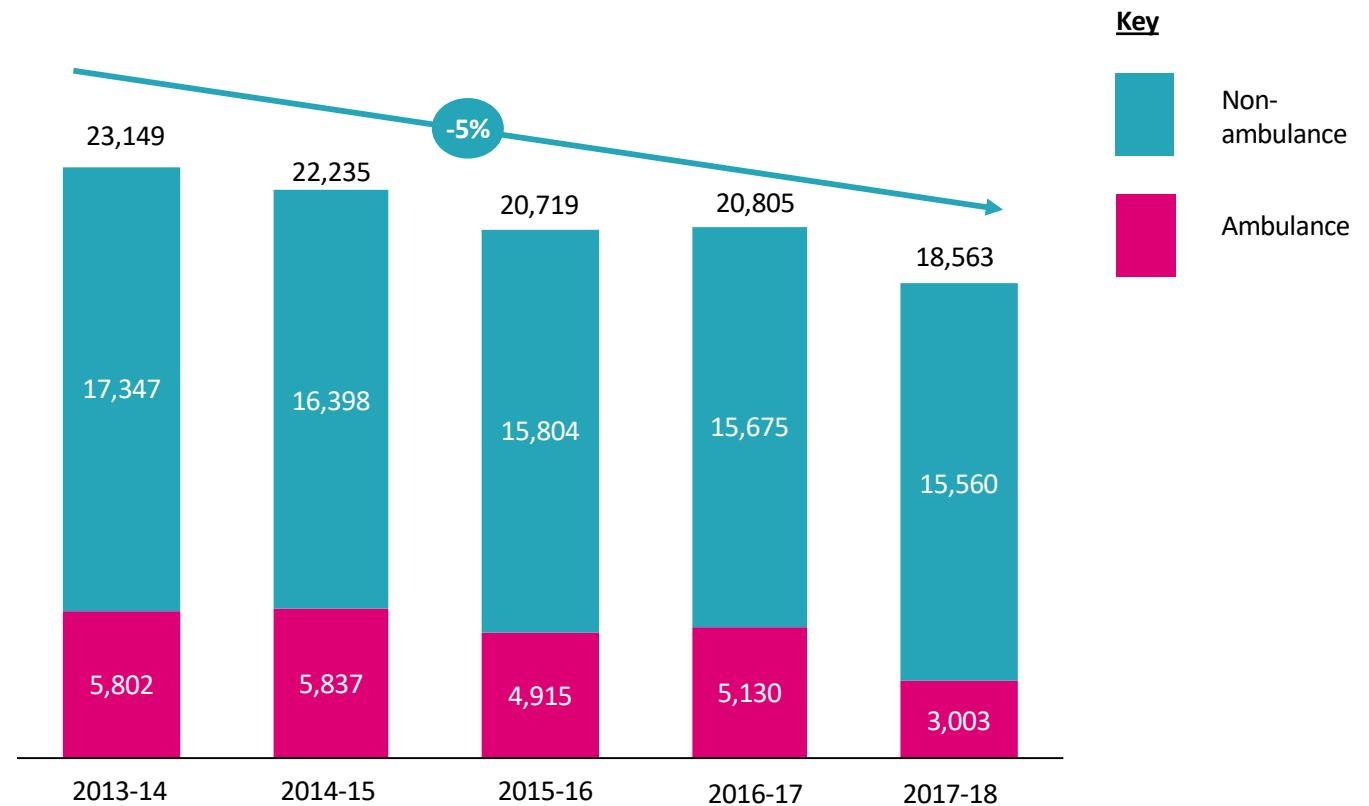
- **These hospitals all cited clinical staffing challenges as one of the key reasons for the change to A+E provision**
- These hospitals have all typically developed urgent treatment centres or equivalent, but **have not developed the enhanced care model which Friarage has implemented**

SOURCE: Mix of consultation papers, Trust papers and media reports; *Data only available for current Urgent care centres- attendance at previous Type I A+E likely to be larger

A+E attendances at the Friarage have decreased over last 5 years by 5% per annum

- A+E attendances have been decreasing over the last four years suggestive that patients are attending other A+Es
- The step change in 2017/18 is reflective that patients needing admission started being diverted straight to the Clinical Decision Unit in April 2017
- This is in contrast to the national increase of 2%/annum in A+E attendances compared to a 1%/annum population growth rate

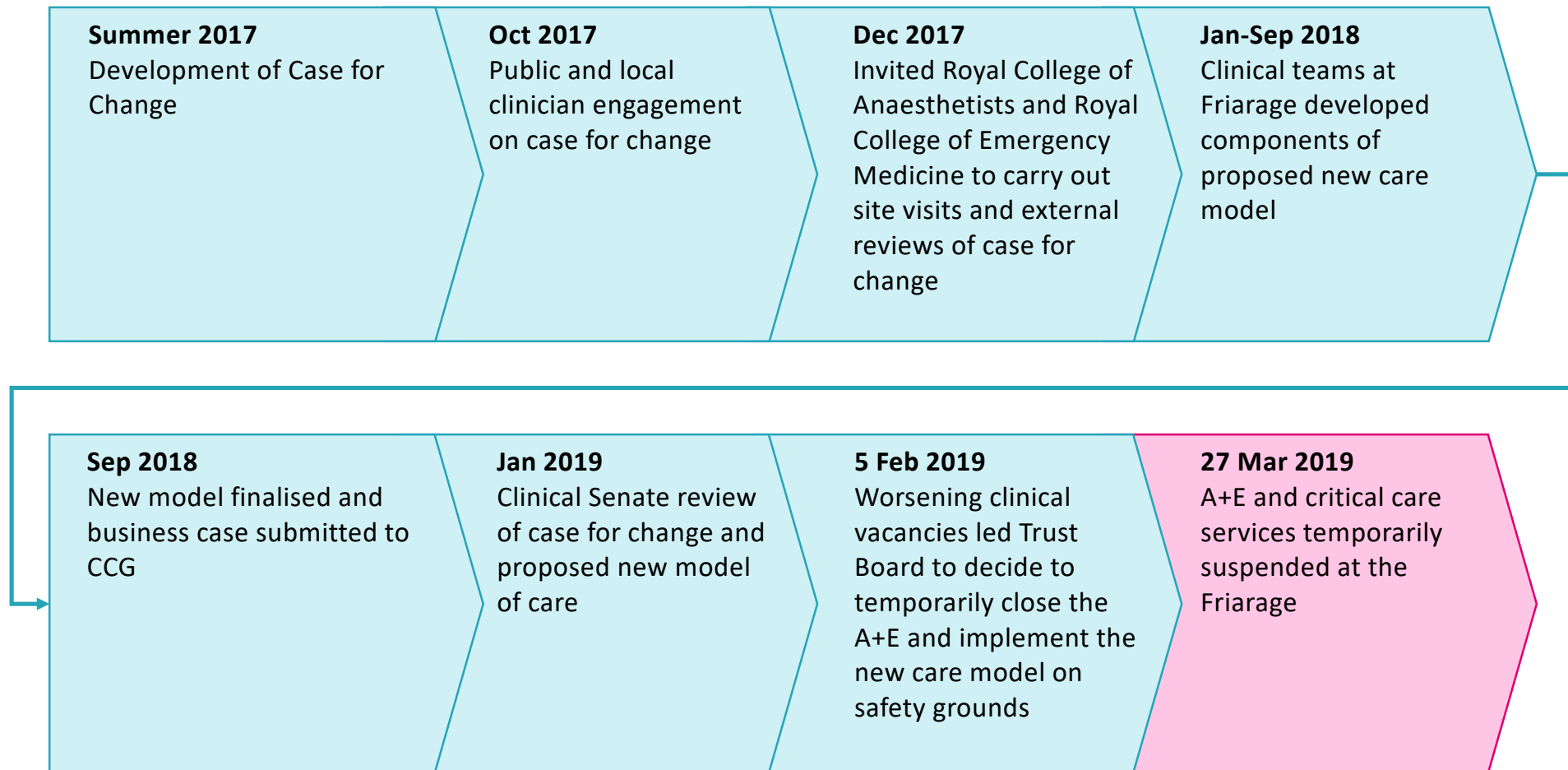
A+E attendances at the Friarage
2013/14 – 2017/18



SOURCE Carnall Farrar analysis of Trust data in case for change



Facing increasing workforce challenges, the Trust has been developing a business case for a new emergency care model at the Friarage over the last two years



SOURCE: Trust business case, September 2018 and Board papers

National and international context

Regional and national challenges are impacting on the ability of small hospitals such as the Friarage to recruit and retain the clinicians required

Challenges local and rural hospitals face

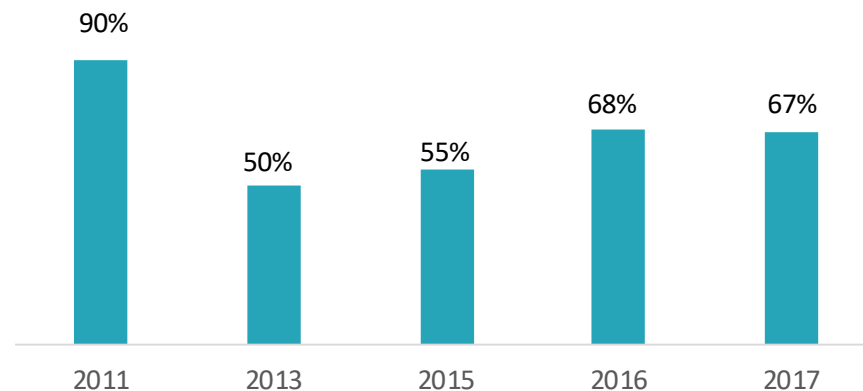
Small hospitals with a low volume of A+E attendances and admissions often struggle to recruit and retain clinicians as the limited exposure to range of medical conditions can put applicants off. In addition, rural hospitals can experience difficulties with attracting workforce due to limited local infrastructure and facilities.

“The low volumes of work; difficulties connecting with professional colleagues; the problem of employment for partners; and a number of other issues combine to make recruitment of all professionals in these areas a challenge” Clinician at Nuffield Trust workshop, 2016

Regional context

- Across the North East of England, 26% of advertised Emergency Medicine consultant posts remain unfilled
- Only 50% of senior anaesthetic trainee roles are filled in Yorkshire and Humber, and 67% in North East of England
- The ongoing high vacancy rate in anaesthetics in Northern England has enabled doctors who may have previously not entered specialist training to do so, leading to a local reduction in non-training grade doctors and locums available and a reduction in quality of the remaining staff
- The vacancy rate has also led to significant rota gaps across the region (including at James Cook) leading to greater competition from other hospitals for the limited non-training doctors and locum doctors available

Anaesthetic training programme vacancy rates in NE England 2013/14 – 2017/18



A number of suggested causes including:

- A lack of medical schools in the region reduces awareness of the area as a place to work
- The struggle to recruit doctors away from the large cities

SOURCE: Nuffield Trust: Rethinking acute medical care in smaller hospitals, Oct 2018; Royal College of Emergency Medicine Workforce Recommendations 2018; Royal College of Anaesthetists Briefing, “The anaesthetic, intensive care and critical care workforce”, Dec 2017; Centre for Workforce Intelligence 2015 Report; RCEM Friarage Clinical review, 2017

Increased national subspecialisation in anaesthetics has made it challenging for small hospitals to adequately staff A+E in small hospitals

Fewer generalist anaesthetists are available-these are required to cover A+E in small hospitals

A+E departments require the support of ITU and intensive care doctors to safely support patients with emergency conditions

- In small hospitals this intensive care support needs to be provided by doctors who also provide anaesthetics in operating theatres as there is not enough demand to have a separate anaesthetist and critical care doctor
- However **the sub-specialisation of anaesthetics into anaesthetics and intensive care over the last 10 years has meant that there are fewer doctors available with the skill set to cover both anaesthetics and critical care**
 - There are both fewer new consultants completing their training with expertise in both anaesthetics
 - Many older doctors are not maintaining the competencies to work across both areas
- These specialist intensive care doctors need to work in larger units to maintain their competencies
- Lastly, there is a shortage of anaesthetists being trained with **14% of senior anaesthetic training rotations remained unfilled nationally.**

Whilst more anaesthetists are required

- The introduction of the European Working Time Directive (2003) substantially reduced the number of hours doctors could work (to maximum 48 hours/week), **meaning that more doctors were required to fill rotas**
- Additionally a reduction in **NHS pension tax relief for top earners** has inadvertently had the consequence of discouraging clinicians from working extra shifts

“Rural areas often require a mix of skills that cut across current specialty or sub-specialty boundaries” Clinician at Nuffield Trust health care in rural settings seminar, 2016

“The pool of people with the right general skills has been depleted by subspecialisation” Clinician at Nuffield Trust health care in rural settings seminar, 2016

“Such high marginal tax rates mean it could be rational for an individual to seek to work part-time rather than work full-time...” NHS employers on pension changes

A drop in Indian trained doctors working in the UK may be having an impact on anaesthetic and intensive care rotas

- The NHS is dependent on foreign doctors. In 2018, **21%** of hospital doctors in Yorkshire and Humber qualified in Asia and **6%** in Africa (Exhibit 1).
- Specifically, **17% of UK anaesthetists and intensive care doctors** trained in India (Exhibit 2)
- However since 2009, Indian doctors as a whole in the UK have dropped from 12% to 6% of total doctors. Anecdotal evidence might indicate that Indian doctors are choosing to remain working in India or to return home after training **“as the growing health sector back home provides more lucrative opportunities”**
- Additionally anecdotal evidence could suggest that some international doctors are now being attracted by increased opportunities in the Gulf region
- Whilst recruitment agencies report still being able to source doctors from overseas, this context does have the potential **consequence of reducing the number of doctors from overseas available to fill posts**
- This will have a particular impact on specialties such as anaesthetics which have specifically depended on international recruitment

In 2018, out of 8.3k registered anaesthetists in the UK, 17% were from India

Exhibit 1: Hospital doctors by country of qualification, June 2018

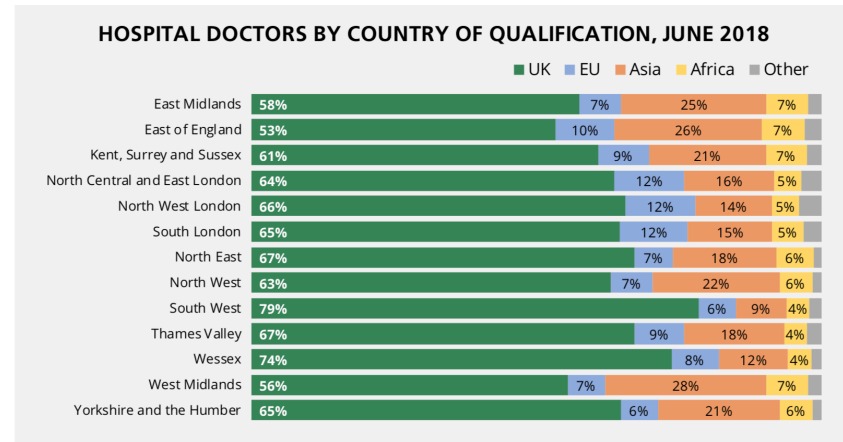
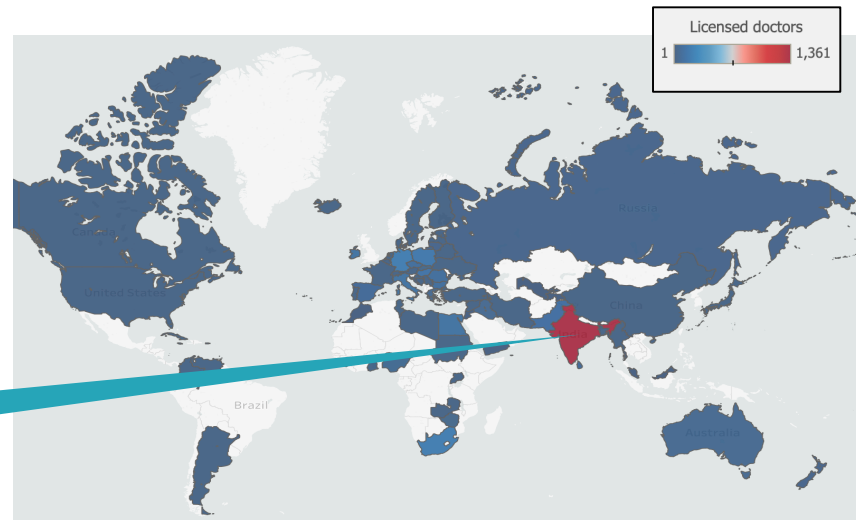


Exhibit 2: Qualification country for non-UK registered anaesthetists



SOURCE: NHS Staff from overseas statistics, 2018 <https://data.gmc-uk.org/gmcdata/home/#/reports/The%20Register/World%20maps/report>; Centre for Workforce Intelligence 2015 Report; Hindustan Times, April 2017: Indian doctors likely to be more in demand in UK post Brexit; Interview with international medical recruitment agency

Review of the case for change

The Trust's case for change focuses on the current workforce sustainability concerns that are impacting on the Friarage's ability to deliver emergency services safely

Summary of the case for change

- The Trust has historically struggled to adequately staff A+E, anaesthetics and critical care rotas according to the national standards to ensure safe patient care
- Significant efforts have been made to resolve rota challenges but these have not produced sustainable solutions
- More recently, clinical staff leaving and retiring across both Trust sites have worsened gaps in the rota
- A number of near misses led the Board to implement a temporary new model of care to mitigate safety concerns

Approach to the review

Key line of enquiry	Analysis undertaken
<p>1 What are the emergency care clinical standards and what is the potential impact on patient safety if these are not met?</p>	<ul style="list-style-type: none"> • Review of Royal College guidelines and Clinical Senate review
<p>2 Has the Trust struggled to adequately staff rotas against the clinical standards?</p>	<ul style="list-style-type: none"> • Review of Trust case for change • Interviews with Trust stakeholders
<p>3 Has the Trust explored all realistic opportunities to resolve the underlying workforce recruitment and retention challenges?</p>	<ul style="list-style-type: none"> • Review of Trust case for change • Interviews with Trust stakeholders • Interview with international recruitment agency • Review of Royal College of Anaesthetists, Royal College of Emergency Medicine and Clinical Senate findings
<p>4 Did the workforce issues escalate to an extent that the Trust Board was reasonable to implement a temporary closure on the grounds that the current model of care was at risk of becoming unsafe?</p>	<ul style="list-style-type: none"> • Review of Trust Board papers • Interview with Trust medical director

SOURCE: Trust clinical case for change, Nov 2017

1

There are clear clinical staffing requirements which must be met to deliver safe emergency care

A+E staffing requirements

- As identified by Royal College Emergency Medicine (RCEM) review in 2017, the viability of a Type 1 A+E is dependent on *“the ability to staff the Emergency Department with **suitably trained and qualified personnel throughout the periods that the department is open**”*
- This includes on site **24/7 on-site** emergency department **senior doctor** cover
- These guidelines are supported by a growing evidence base that this improves the quality of patient care and enhances patient safety

Support from anaesthetic and critical care staff

- The RCEM review states that the viability of a Type 1 A+E is dependent on *“the availability of back-up facilities within the attached hospitals including **24/7 critical care facilities** and additionally the **availability of supporting personnel** – in particular, **anaesthetists and critical care specialists**”*
- To deliver these requirements typically involves the following elements:
 - Anaesthetists with intensive care expertise to manage and treat severe emergencies both in A+E, on the wards and in the intensive care unit
 - Critical care nurses who can support the intensive care unit which provides ongoing treatment to these sick patients
 - Clinicians with general anaesthetic expertise who are able to anaesthetise patients arriving at A+E who need emergency surgery
 - Off site advice from a consultant with up to date anaesthetic **and** intensive care expertise who can advise the resident clinician and is based close enough to the site that they can quickly come in to support them
- These guidelines are supported by a growing evidence base that this improves the quality of patient care and enhances patient safety

SOURCE: Royal College of Emergency Medicine workforce recommendations; Royal College of Emergency Medicine Friarage Hospital Report, Dec 2017; Guidelines for the Provision of Anaesthetic Services (GPAS) 2019

2 The Friarage has struggled to fill the A+E medical and nursing rotas required to safely support its emergency care model

Workforce challenges faced	CF impact analysis
<ul style="list-style-type: none">• To meet A+E staffing standards, the Friarage has taken the approach that:<ul style="list-style-type: none">- Junior emergency medicine doctors staff the rota 24/7- Consultants in emergency medicine provide resident cover 8-6pm Mon-Fri- Out of these hours, consultant support is provided off site by the James Cook emergency medicine consultant on call• The Trust has never been a training site for junior doctors training in emergency medicine because of the low number of patients who attend the site, and the fact that major trauma and more specialist services are bypassed to James Cook• It has instead been dependent on non training grade doctors to fill the rota• The Trust has been dependent on increasing number of locums - now 41.7% of shifts are covered by locums	<ul style="list-style-type: none">• The absence of trainee junior doctors has made it challenging for the Trust to adequately staff rotas against clinical standards• With significant gaps in A+E rotas nationally (in part the result of vacancies on training programmes) it will have been increasingly challenging to fill these rotas with non-training grade doctors• A dependence on high levels of locum doctors is not sustainable• This is reinforced by the Royal College of Emergency Medicine review team who were clear that the status quo is not sustainable in part because of <i>“Difficulties recruiting sufficient senior emergency department staff to cover the department out-of-hours during the weekdays and at weekends”</i> and that <i>“the current workforce solution with a reliance on high numbers of short-term locums gives grave cause for concern about the quality of care delivered to patients”</i>• This Royal College of Emergency Medicine review also made clear that the lack of 24/7 on-site emergency medicine senior doctor cover is not compliant with guidelines

2 The Friarage has struggled to fill the anaesthetic and critical care staffing rotas required to safely support its current emergency care model

Workforce challenges faced

- To cover anaesthetic and critical care requirements, the Friarage has taken the approach of:
 - A 1/8 rota of a resident anaesthetist with both up to date general anaesthetic and ITU expertise
 - 1/8 rota staffed by consultants with both up to date general anaesthetic and ITU expertise who are on site Mon-Fri 8am-9:30pm and then available off site
- Traditionally the resident rota was covered by trainee anaesthetists, but in 2016 trainees were removed from the Friarage because of concern about a lack of training opportunities during the on-call shifts
- There is a reducing number of non training grade doctors (only 2 staff) available to cover the resident rota due to staff leaving or retiring. Additionally some existing staff are only willing and employed to work daytime shifts
- Friarage anaesthetic consultants (3 roles) have been covering some of the resident shifts but this has impacted on their ability to then provide care for non-emergency patients having surgery
- The Trust has as a consequence been increasingly dependent on locum staff
- Consultants from James Cook have been covering both the resident and off site rotas but there are very few who have the up-to date required intensive care and general anaesthetic experience
- The Trust has also struggled to recruit and retain adequate numbers of critical care nurses to staff the ITU

CF impact analysis

- The absence of trainee junior doctors has made it challenging for the Trust to adequately staff rotas against clinical standards
- With significant gaps in anaesthetic rotas nationally it will have been increasingly challenging to fill these rotas with non training grade doctors
- A dependence on a reducing pool of James Cook consultants to staff the resident and non-resident rotas is not sustainable
- A dependence on high levels of locum doctors will have meant that the Trust increasingly struggled to attract appropriately trained locums to the area. The Royal College of Anaesthetists review team were clear that *“the current configuration...is unsustainable in the short to medium term given the existing recruitment issues.... Without urgent action on some aspects, there would even be **potential for patient safety issues**, a view shared by some staff across the trust”*
- The Royal College of Emergency Medicine were clear that the *“difficulties providing anaesthetic cover are **significantly challenging the Emergency Department**”*
- The Clinical Senate concluded that **“the Case for Change is well made** and it is clear that your ability to provide some services at the Friarage is compromised and that the **current services at the Friarage are not sustainable”**

SOURCE: Royal College of anaesthetists invited review report South Tees NHS Foundation Trust; Royal College of Emergency Medicine Friarage Hospital Report, Dec 2017; Yorkshire and the Humber Clinical Senate review of Friarage Hospital Services, February 2019

3 The Trust has made significant efforts to resolve the workforce challenges but these have not resulted in a sustainable solution (1/3)

Approach	Action taken	CF analysis
Recruitment initiatives to secure non-training grade staff	<ul style="list-style-type: none"> The Trust has previously had recruitment drives which involved advertising both nationally and internationally for Trust grade anaesthetic and A+E staff. This resulted in a limited number of applications and a further limited number of applicants with the right competencies Recruitment to joint roles across James Cook and the Friarage was more successful however it was challenging retaining these staff who frequently subsequently applied for training programmes elsewhere Recruitment efforts have also included advertising at national anaesthetic conferences and on social media with very limited success The Trust has offered to pay non training middle grade posts at consultant levels, but candidates who were offered posts declined these to either work in other UK hospitals with a wider range of opportunities or overseas 	<ul style="list-style-type: none"> With the reducing number of attendances and conditions the A+E has been treating, it has become increasingly difficult to attract A+E and anaesthetic staff to work at the site Considering the regional high vacancy rate in training programmes, it is not surprising that the Trust has found it challenging to recruit and retain non training grade doctors However, the Trust has not to date worked with international recruitment agencies. CF analysis indicates that engaging a specialist agency with expertise in recruiting overseas could have potentially enabled the Trust to recruit overseas anaesthetists to the Trust Targeting overseas doctors with families who would be less likely to apply for training programmes and work in different parts of the country may have helped support retention. Additionally financial incentives may have further supported this retention However given the national and international context this may not have led to a sustainable solution

“We could have developed a specialist solution to recruit and retain anaesthetists from overseas to work at the Friarage”
 Recruitment specialist at Remedium partners

“Despite considerable efforts, the only appointments secured have been staff grade posts for employees who are delayed in their onward training programme for various reasons... it is not a role that attracts new recruits to work substantively within the site” Trust case for change, supported by Royal College of Emergency Medicine review

SOURCE: Interview with international medical recruitment agency (Remedium Partners)

3 The Trust has made significant efforts to resolve these challenges but these have not resulted in a sustainable solution (2/3)

Approach	Action taken	CF analysis
Anaesthetic cross-cover from James Cook	<ul style="list-style-type: none"> Anaesthetic/Critical care rota gaps (both resident and non-resident on call) have been increasingly covered by consultants from James Cook. However, there is a limited number of anaesthetists there who have up to date ITU competencies and are hence able to support the Friarage on-call With a number of these anaesthetists leaving in recent times to work in other Trusts, retire or move overseas, this has become increasingly challenging Additionally, these anaesthetists covering the Friarage resident on-call rota impacts on the James Cook rota. This in turn means that patients (including Friarage patients) are at risk of not accessing the specialist services which James Cook provides 	<ul style="list-style-type: none"> Whilst there are 40 FTE anaesthetists at James Cook, there are 8 FTE vacancies (20% vacancy) In line with general anaesthetics over the last 10 years separating into anaesthetics and intensive care, the vast majority are sub-specialised as anaesthetists (some only do paediatric) or intensive care clinicians meaning that only a few have both up to date critical care and anaesthetic expertise Some consultants live too far from the Friarage to provide off site on call safely It does not appear viable for James Cook consultants to sustainably cover Friarage resident and/or non resident rotas as: <ul style="list-style-type: none"> - It risks staff who don't have up to date ITU experience feel pressurised to cover shifts, risking both serious incidents and staff leaving - It impacts on their daytime capacity to deliver specialist services at James Cook (doing an on-call shift means that the consultant can not cover their normal shift next day) Recruiting new anaesthetic consultants to work across both sites will have been challenging in view of the increased sub-specialisation of staff and the need for the Friarage on-call consultant to be able to cover anaesthetics and intensive care

3 The Trust has made significant efforts to resolve these challenges but these have not resulted in a sustainable solution (3/3)

Approach	Action taken	Independent analysis
Locum recruitment initiatives	<ul style="list-style-type: none"> The Trust has instead been increasingly dependent on locum/temporary staff. They have offered high rates of pay and worked across a range of locum agencies, but have struggled to attract doctors of adequate quality They have been successful in persuading some locum doctors to work longer-term at the Trust, but frequently these doctors have then secured places on training programmes 	<ul style="list-style-type: none"> Rota vacancies across the North East are likely to impact on the availability of quality locum doctors as better candidates secure training jobs
A+E cross-cover from James Cook	<ul style="list-style-type: none"> A+E consultants from James Cook have been providing off site cover to the Friarage A+E out of hours 	<ul style="list-style-type: none"> Dependency on out of hours cover by the A+E consultant at James Cook puts the Trust at risk of not being compliant with the requirement for A+Es to be consultant led 24/7 With James Cook being a major trauma centre, the A+E consultant there may not always be available to support the Friarage hospital when required
Overtime	<ul style="list-style-type: none"> Frequently A+E and anaesthetic staff at both Friarage and James Cook have worked overtime shifts to cover rota gaps often at short notice 	<ul style="list-style-type: none"> This is not a sustainable solution for the Trust. Rota gaps may risk producing a cycle where staff working extra shifts leads to job dissatisfaction, burn-out and sickness - which in turn will make rota gaps worse A number of anaesthetic staff have left to work overseas and others are on long term sick leave

4 The Trust Board decided to implement a temporary closure on the grounds that the current model of care was at risk of becoming unsafe

The Trust Board took a decision on 5 February 2019 to temporarily close the Friarage's A+E and implement its proposed new model of care for urgent and emergency care services. The decision was made to *“plan, mobilise and implement urgent temporary changes to the way in which services are delivered; these changes are being made to ensure the Trust can **continue to deliver safe services to patients and proactively manage clinical risks** which may compromise patient safety”*.

A series of events led to the escalation of this decision:

- A number of James Cook anaesthetists who were cross-covering left and the Trust had not been able to fill these vacancies. James Cook has 8 FTE anaesthetic vacancies who are covered by locums (20% vacancy)
- There was a further reduction in employed consultants and non training grades at the Friarage due to sickness and staff moving elsewhere
- Concern about the quality of a number of the locums meant that two staff had to be barred from working at the Friarage
- Increasing dependence on locums in A+E and acute medicine meant an increased dependence on anaesthetists as the most senior person in hospital (this was problematic because the anaesthetist roles were filled by locums)
- A near miss incident occurred where a patient deteriorated and the emergency team required assistance from a consultant who was off duty but was still fortunately at work
- Last minute resident anaesthetic rota gaps had to be increasingly covered by the consultant on the off-site rota. When this happened, the A+E had to be closed to admissions as the ITU and A+E could not be covered at the same time. This **no doctor policy** occurred **four times in 12 months** at the Friarage

SOURCE: Trust Board papers

4 The Trust Board decided to implement a temporary closure on the grounds that the current model of care was at risk of becoming unsafe

Risks associated with keeping the A+E open





- The Board's view was that a further escalation of workforce challenges could rapidly lead to a situation which required
 - An emergency closure of the A+E
 - Emergency evacuation of patients in the hospital who were dependent on anaesthetic and critical care support

Risks associated with temporarily closing the A+E and changing urgent and emergency care services

- The Board's considered the following risks associated with temporarily closing the A+E:
 - Public confusion over status of hospital
 - Impact on patient safety
 - Impact on patient travel times
 - Impact on surrounding hospitals and Yorkshire ambulance service
 - Impact on workforce

In light of the escalating workforce challenges and the number of near misses, CF supports the view of the Board that attempting to maintain the existing model of urgent and emergency care posed greater risk to patient safety than implementing a temporary closure

The review confirms that the Trust has articulated a clear case for change

Key line of enquiry	CF analysis undertaken	Conclusion	Assessment
1 What are the emergency care clinical standards and what is the potential impact on patient safety?	<ul style="list-style-type: none"> Review of Royal College guidelines and Clinical Senate review 	There are clear clinical staffing requirements which must be met to deliver safe emergency care. Evidence shows the impact of not meeting these standards can affect patient outcomes and safety	
2 Has the Trust struggled to adequately staff rotas against these clinical standards?	<ul style="list-style-type: none"> Review of Trust case for change Interviews with Trust stakeholders 	The analysis supports the Trust's view that it has been increasingly challenging to staff the clinical rotas required to deliver safe emergency care	
3 Has the Trust explored all realistic opportunities to resolve these underlying workforce recruitment and retention challenges?	<ul style="list-style-type: none"> Review of Trust case for change Interviews with Trust stakeholders Review of Royal College of anaesthetists, Royal College of Emergency Medicine and Clinical senate findings 	The analysis concludes the Trust has made good attempts to sustainably resolve these workforce challenges but this has been hindered by the external regional, national and international context However, the Trust could have potentially increased the recruitment efforts e.g. working with international recruitment specialists to attempt to recruit staff from overseas	
4 Did the workforce issues escalate to an extent that the board was reasonable to implement a temporary closure on the grounds that the current model of care to be at risk of becoming unsafe?	<ul style="list-style-type: none"> Review of Trust Board papers Interview with Trust medical director 	The analysis supports the Trust's view that there was a significant risk that the workforce challenges could further escalate leading to an emergency closure and that a proactive temporary closure represented less risk to patient safety overall	

Assessment of new model of emergency care

The Friarage has developed a new emergency care model which aims to deliver safe care in the context of its current workforce challenges

Approach to the review

Key line of enquiry	CF analysis undertaken
1 What is the new model of care?	<ul style="list-style-type: none"> Review of Trust business case and presentations
2 Does it address the issues highlighted in the case for change, i.e. does it ensure the delivery of safer care in the context of the workforce challenges?	<ul style="list-style-type: none"> Review of Trust case for change and business case Interviews with Trust and wider stakeholders Review against clinical guidelines
3 Are the assumptions underlying the model's successful delivery robust? <ol style="list-style-type: none"> Are modelled changes to patient attendances at Friarage and surrounding hospitals robust? Can the Trust recruit and retain adequate workforce to deliver the model? Will James Cook and Darlington hospitals have the capacity to support the effective delivery of the model? Will the Yorkshire ambulance service have the capacity to support the effective delivery of the model? 	<ul style="list-style-type: none"> Review of Trust modelling and the assumptions underlying this in the business case and supporting analyses Interviews with Trust stakeholders Analysis of publically available data and Trust provided data
4 Have the wider risks associated with implementing the new model been adequately assessed? <ol style="list-style-type: none"> Will changes to patient pathways maintain patient safety? What impact will the model have on patient travel times? What impact will it have on the existing workforce at the Friarage? 	<ul style="list-style-type: none"> Review of Clinical Senate findings and Trust response to queries raised Review of the Trust's travel time modelling Analysis of of travel times based on publicly available data Interviews with Trust stakeholders

1 The Friarage has implemented the following temporary emergency care model

Previous

A 24 hour A+E which treats patients with a range of emergency illnesses and injuries (but doesn't treat sick children, trauma, obstetric and gynaecology emergencies, heart attacks and strokes)

A+E is supported by a 24 hour "Clinical decision unit" which treats patients with medical or surgical emergencies who may need to be admitted to hospital or require additional support in the community (ambulatory care)

24/7 emergency surgery for patients who require this (excluding trauma, vascular, plastics obstetrics and gynaecology)

Some complex high risk planned surgery such as colo-rectal surgery

Temporary new model

A 24hr Urgent Treatment Centre (UTC) led by specialist nurses (nurse practitioners). Urgent Treatment Centres provide urgent medical care for patients who do not have life-threatening situations. The UTC will be supported by telephone advice from James Cook A+E consultants

A 12 hour clinical decisions unit which will admit patients with a range of medical problems, but not those who need urgent surgery or who have a life threatening situation

Patients who require emergency surgery will need to be admitted to other local hospitals

Complex planned surgery where the patient might require Intensive Care support after the surgery will be done at a different hospital

1 The Trust has made a number of assertions about how patients will be affected by the temporary changes (1/2)

90% of current A+E patients will not be affected

- The Urgent treatment centre will continue to treat people who need urgent medical attention where its not a life-threatening situation
- Patients who have life threatening illnesses where rapid access to medical care is required **will not be affected** as these patients are already treated at James Cook and Darlington as opposed to Friarage. This includes patients who have had major trauma (e.g. road traffic accidents), pregnancy emergencies, heart attacks and strokes. Ambulance paramedics will continue to provide the initial urgent treatment for these patients whilst they are being transported to the specialist hospital

10% of patients will need to be seen elsewhere

- 10% of existing A+E patients will need to be treated elsewhere. This is broken down into:
 - All patients where there is a **concern that they may need support from the intensive care unit**. This includes patients having planned major surgery such as colorectal surgery
 - Patients requiring **admission to medical wards out of hours** such as those with urine infections or chest infections
 - Patients requiring **emergency surgery** such as with appendicitis or a blockage in their bowel

SOURCE: <https://www.nhs.uk/using-the-nhs/nhs-services/urgent-and-emergency-care/when-to-visit-an-urgent-care-centre/>; Trust presentations, Trust case for change, Sep 2018

1 The Trust has made a number of assertions about how patients will be affected by the temporary changes (2/2)

An additional 5-7 children/day could be treated at Friarage

- Currently the Friarage A+E is only able to treat children with minor injuries (e.g. cuts and sprains) but the staff in the new Urgent Treatment Centre will be able to additionally treat children with medical illnesses where these are non-life threatening and not requiring surgery or admission to hospital. This includes skin infections and rashes and ear and throat infections and fevers. These children previously have had to travel to a different A+E as the Friarage did not have the paediatric support required to treat them under the label of an A+E. In contrast UTC regulation enables these children to be treated by nurse practitioners

Additional patients could have their ongoing treatment or day surgery at Friarage

- Opportunity for patients who have had specialist care at James Cook or Darlington hospital to be transferred back to Friarage in their local community for ongoing treatment and rehabilitation closer to home. This might include, for example, patients who have broken their hip who need ongoing treatment and support before returning home
- Not carrying out emergency surgery will free up capacity to provide more planned day case surgery and short stay surgery to be carried out at the Friarage. This might include patients having hip or knee replacements or urology procedures.

SOURCE: <https://www.england.nhs.uk/wp-content/uploads/2017/11/urgent-treatment-centres-faqs-1.pdf>; <https://www.nhs.uk/using-the-nhs/nhs-services/urgent-and-emergency-care/when-to-visit-an-urgent-care-centre/>

2 CF review of the new model of care indicates that it is able to deliver a safer model of care in the context of the current staffing challenges (1/2)

Current	New model	CF analysis
A 24 hour A+E which treats patients with a range of emergency illnesses and injuries (but doesn't treat sick children, trauma, obstetric and gynaecology emergencies, heart attacks and strokes)	<ul style="list-style-type: none"> A 24 hour UTC led by specialist nurses (nurse practitioners) which provides urgent medical care for patients who do not have life-threatening situations The emergency nurse practitioners will be supported by an on call A+E consultant at James Cook The UTC will accept ambulances where the patients don't have a life-threatening situation An emergency team (made up of doctors and nurses) will be able to provide emergency care to any patients who do develop life threatening illness and support them to be safely transferred by ambulance to James Cook The UTC will be able to treat children with urgent (but non-life threatening situations) medical conditions who don't need admission 	<ul style="list-style-type: none"> ✓ This will resolve the A+E medical clinician rota challenge as the care will be nurse led ✓ Not treating life threatening situations will remove the need for 24/7 on call anaesthetist to cover the A+E, intensive care and emergency surgery ✓ The UTC will be supervised by the existing A+E consultants at James Cook
A 24 hour "clinical decision unit" which treats patients with medical or surgical emergencies who may need to be admitted to hospital or require additional support in the community (ambulatory care)	<ul style="list-style-type: none"> A 12 hour clinical decisions unit which will admit patients with a range of medical problems, but not those who need urgent surgery or who have a life threatening situation All referrals by GPs and those brought in by ambulance will be reviewed by a medical consultant who will assess if they can be safely managed at the Friarage or should be diverted to another hospital Spare capacity on medical wards will enable patients who have had initial specialist care at James Cook or Darlington hospital to be transferred back to the Friarage for ongoing treatment and rehabilitation closer to home 	<ul style="list-style-type: none"> ✓ Not treating life threatening situations will remove the need for 24/7 need for an on call anaesthetist to cover the clinical decision unit, intensive care and emergency surgery ✓ Limiting to 12 hours will limit the medical consultant workforce requirements to cover the rota

SOURCE: Trust business case, Sep 2018

2 CF review of the new model of care indicates that it is able to deliver a safer model of care in the context of the current staffing challenges (2/2)

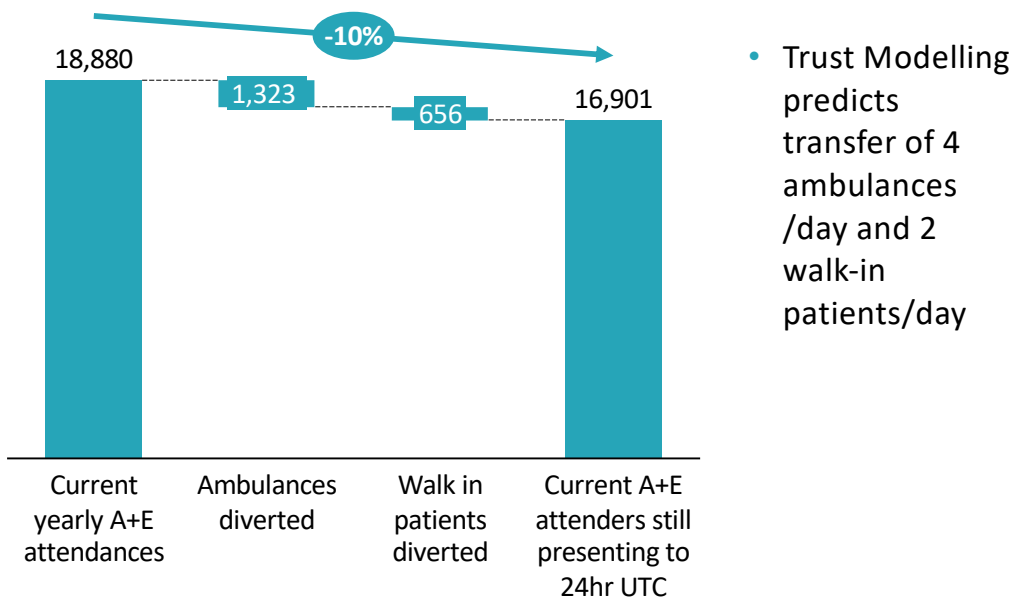
Current	New model	CF analysis
24/7 emergency surgery for patients who need this (excluding trauma, vascular, plastics obstetrics and gynaecology)	Patients who need emergency surgery will need to be admitted to other local hospitals	✓ This removes the need for a 24/7 on-call anaesthetist to cover emergency surgery
Some complex high risk planned surgery such as colorectal surgery	Complex planned surgery where the patient might require Intensive Care support after the surgery will be done at a different hospital	✓ The Friarage will no longer require an intensive care unit which will resolve the need for 24/7 anaesthetist cover and additionally resolve critical care nursing rota gaps

3 CF assessment of the Trust's modelling validates the forecast that 10% of current A+E patients will need to be cared for elsewhere

- The Trust has modelled the percentage of local people who will be required to travel to another A+E when previously they could receive treatment at the Friarage A+E
- The Trust assessed % of patients who: 1) currently attend A+E and the clinical decision unit with life threatening situations; 2) were admitted and required emergency surgery. The modelling also assumed that ambulances would convey appropriate patients to the new Urgent Treatment Centre
- **The changes should not negatively children, as those with life threatening situations are already treated at James Cook**
- Based on these assumptions, a 10% reduction in attendances was forecast
- CF analysis supports the assumptions underpinning this modelling

Forecasted change in patients attending UTC under new model

Yearly emergency department attendance



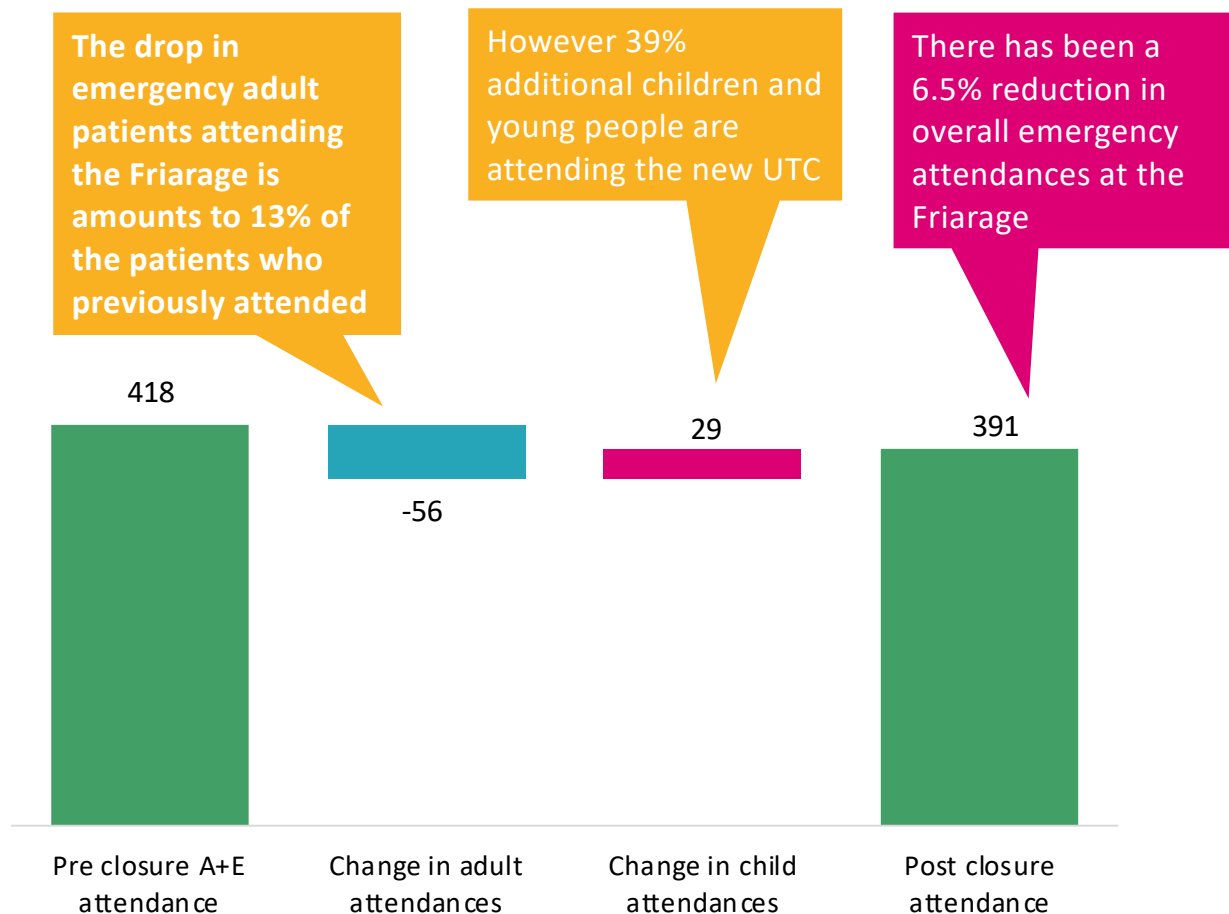
SOURCE: Trust business case, Sep 2018; Temporary closure Trust weekly report

During the temporary closure, 87% of previous A+E patients have continued to attend the Friarage. This closely matches the Trust modelling

Actual changes in emergency attendances at Friarage between April/May 2018 and April/May 2019

Mean weekly attendance; April-May 2019 compared to 2018

- The drop in emergency adult patients attending the Friarage is amounts to 13% of the patients who previously attended. This is close to the 10% predicted by the Trust
- However it indicates that there needs to be a continued focus on public communication to ensure that appropriate patients are still attending the Friarage as opposed to choosing to attend elsewhere
- There has been a 39% increase in number of children attending the new UTC. This is suggestive that there has been effective public communication about the capability of the new facility to treat children with minor illnesses
- In addition, further CF analysis estimates that >95% of total prior patients continue to receive their treatment at the Friarage whether in at the urgent treatment centre, in outpatients, as daycases or as hospital admissions



SOURCE: CF analysis of Trust data; HED data

3 CF review of the workforce plans indicates that the Trust will be able to meet the requirements to successfully deliver the model of care (1/3)

Workforce assumption	Implementation plan	CF analysis	Recommendations
Urgent Treatment Centre will be supported by telephone by existing A+E consultants at James Cook	<ul style="list-style-type: none"> Existing Friarage A+E consultants will join the James Cook rota which will help to ensure that James Cook has adequate consultants to support the model 	<ul style="list-style-type: none"> ✓ Discussion with stakeholders suggests that this is realistic as no new consultants will be required ✓ Retaining consultants at a major trauma centre is likely to be easier than it has been at the Friarage 	N/a
There will be adequate medical consultants to staff the 12 hour clinical decision unit	<ul style="list-style-type: none"> The Trust has an existing group of medical consultants who have been covering this rota to date It is currently training two local GPs to contribute to this rota 	<ul style="list-style-type: none"> The Trust does have a clear plan to recruit adequate staff to fill the rota However currently the rota has 1.8 WTE vacancies 	<ul style="list-style-type: none"> Further develop the GP “acute medicine training programme” to attract local GPs into these roles Explore flexible rota options to attract acute medical physicians to roles

3 CF review of the workforce plans indicates that the Trust will be able to meet the requirements to successfully deliver the model of care (2/3)

Workforce assumption	Implementation plan	CF analysis	Recommendations
There will be adequate critical care nurses and intensivists at James Cook to look after additional patients	<ul style="list-style-type: none"> Plans to transfer critical care nurses from the Friarage to James Cook Recruiting additional intensive care specialists to work at James Cook as a specialist centre is easier than attracting generalist roles to Friarage 	<ul style="list-style-type: none"> Discussions with Trust stakeholders indicates the Trust has had greater success recruiting specialist intensive care doctors to a larger hospital than generalists to work at a small hospital The Clinical Senate review raised a query about whether the James Cook would be able to care for the additional patients in their intensive care. The Trust has provided a clear response to this query, that staff will be supported to transfer from the Friarage to James Cook and that in addition centralising intensive care at one site will enable economies of scale 	<ul style="list-style-type: none"> It will be vital to work with nursing and medical staff to ensure that staff are not lost but instead choose to transfer to James Cook to support the increased workload

SOURCE: Yorkshire and the Humber Clinical Senate review of Friarage Hospital Services, February 2019; Trust response to Clinical Senate queries, March 2019



3 CF review of the workforce plans indicates that the Trust will be able to meet the requirements to successfully deliver the model of care (3/3)

Workforce assumption	Implementation plan	CF analysis	Recommendations
There will be adequate emergency nurse practitioners to staff the Urgent Treatment Centre 24/7	<ul style="list-style-type: none"> Existing A+E and other nurses at the Friarage and across the Trust will be given career development opportunities to train as nurse practitioners Existing A+E consultants will train and support these nurses during the transition period 	<ul style="list-style-type: none"> The review notes that the Clinical Senate suggested that a 24 hour service will be <i>“difficult to staff”</i>, however overall considers that the Trust’s plan to train and develop existing staff appears reasonable Anecdotally, specialist nurse practitioner roles are easier to recruit to and retain than other nursing roles However, it is apparent from discussions with Trust stakeholders that ongoing uncertainty about the future of Friarage may impact on recruitment and retention of both doctors and nurses Whilst reducing UTC opening hours would reduce workforce requirements (13.7FTE to 8.7FTE emergency nurse practitioners) this would reduce access (CF independent analysis indicates additional 17% of existing patients will need to be diverted under a 12 hour model and an additional 8% under 6am-10pm opening hours) Of note a reduction in UTC hours would not impact on emergency and planned hospital admissions as this is only related to the clinical decision unit opening hours (12 hours/day) 	<ul style="list-style-type: none"> The Trust needs to focus on retaining and developing existing nurses as emergency nurse practitioners The Trust should consider a national recruitment drive for emergency nurse practitioners If there are ongoing issues with staffing the model, it is recommended that the Trust pursue a 16 hours/day (6am-22:00) model as this will limit the impact on patient access

.SOURCE: Yorkshire and the Humber Clinical Senate review of Friarage Hospital Services, February 2019



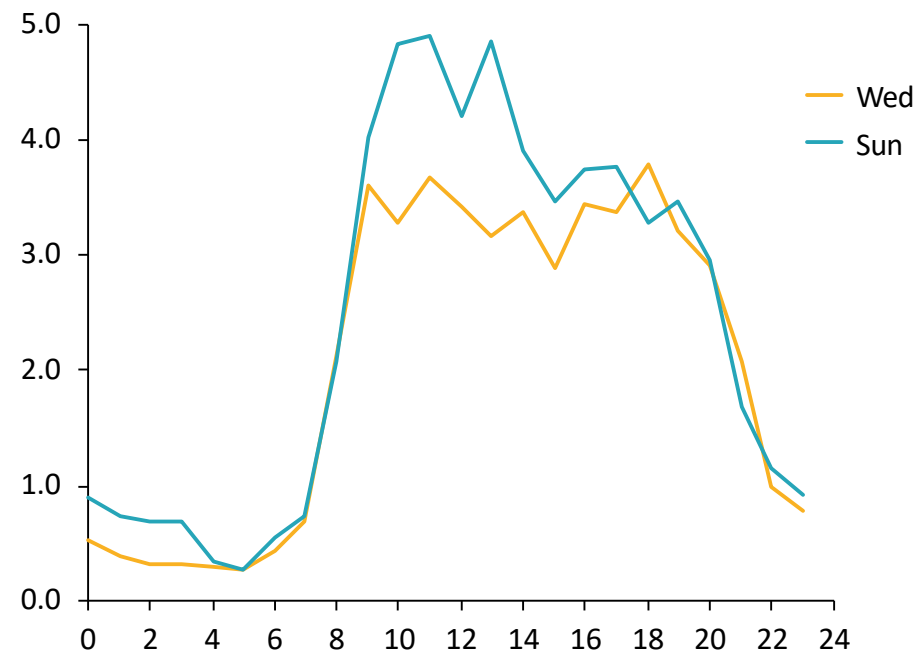
3 The Trust will need to focus on training and developing adequate numbers of specialist emergency nurse practitioners to staff the Urgent Treatment Centre 24/7

- Trust data indicates that a 24 hour UTC will require **13.8 FTE** emergency nurse practitioners as compared to **8.8 FTE** for a 12 hour UTC. To achieve this a focus on both retraining and retaining existing staff and recruiting new advanced nurse practitioners will be required
- The Clinical Senate review noted that that a 24 hour Urgent Treatment service would be “*difficult to staff*” and that additionally may not be the best solution based on activity and clinical need
- Their report noted that reducing the UTC opening to a 12 hour model would mean an additional 16% of patients would have to seek care elsewhere out of hours and therefore extending daytime hours may serve as a compromise

- CF analysis of the Trust’s data broadly supports this, suggesting that an additional 17% of existing A+E patients will need to be diverted under a 12 hour model and an additional 8% under 6am-10pm opening hours**
- Of note a reduction in UTC hours would not impact on emergency and planned hospital admissions as this is only related to the clinical decision unit opening hours (12 hours/day)**

Friarage A+E attendances 2017/18

Hour of day



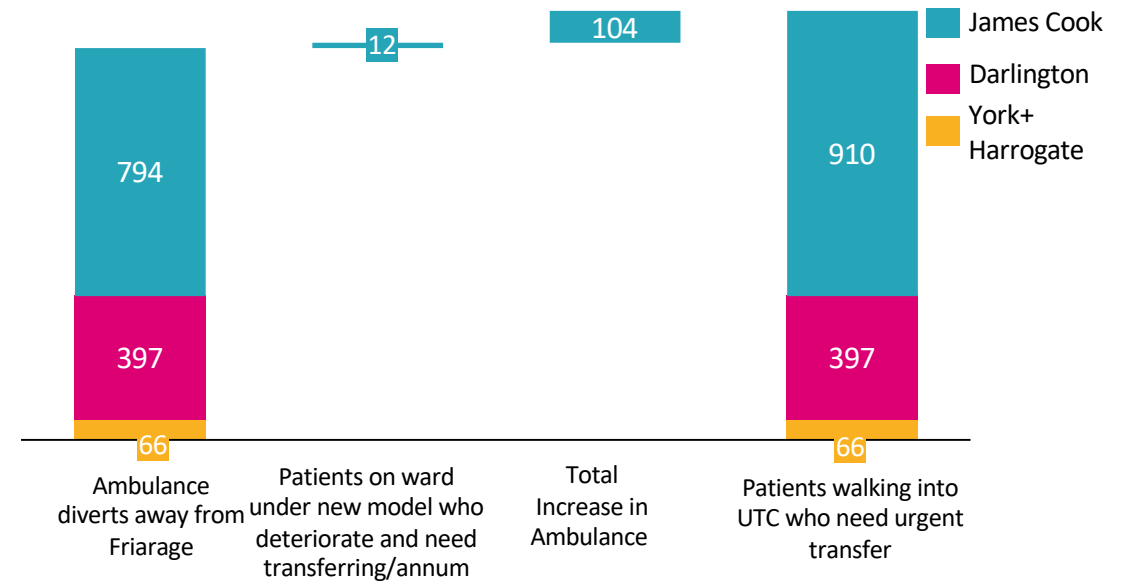
- 81% of current A+E attendances arrive in A+E between 9am-9pm
- There is an average of less than 1 attendance/hour between 9pm-9am (0.8/hour on Wed and 0.9/hour on Sun)
- Under a 24 hour UTC model, 10% of A+E patients would have to be diverted
- Under 12 hour UTC model, this rises to 27% (17% more patients)

SOURCE: Trust business case

3 Data from the temporary closure suggests that the impact on the ambulance service may be less than was originally modelled

- The Trust has modelled the impact of the new model of care on the Yorkshire ambulance service:
 - The Trust assessed % of current ambulance arrivals who have life threatening situations or are admitted for emergency surgery. It allocated these patients to alternative hospitals based on travel time to the next nearest site
 - It assessed: 1) % of current patients who walk into A+E currently who have life threatening situations; 2) current patients on the wards who would be admitted under the new model but unexpectedly developed life threatening situations. These patients would need an urgent ambulance transfer to James Cook.
 - The modelling predicts that 60% of patients needing to be seen elsewhere would be transferred to James Cook; 35% to Darlington; 3% to Harrogate; 2% to York
- The review was unable to validate these assumptions with the Yorkshire ambulance service, however data from the first week of the temporary closure indicates that the original modelling has potentially overestimated the impact on the ambulance service
- There is a risk that ambulances will bypass Friarage with patients who could actually be treated there. Clear communication with the ambulance service will be required to mitigate this risk

Predicted increase in ambulance transfers per year under new model
Increased ambulance transfers to each hospital



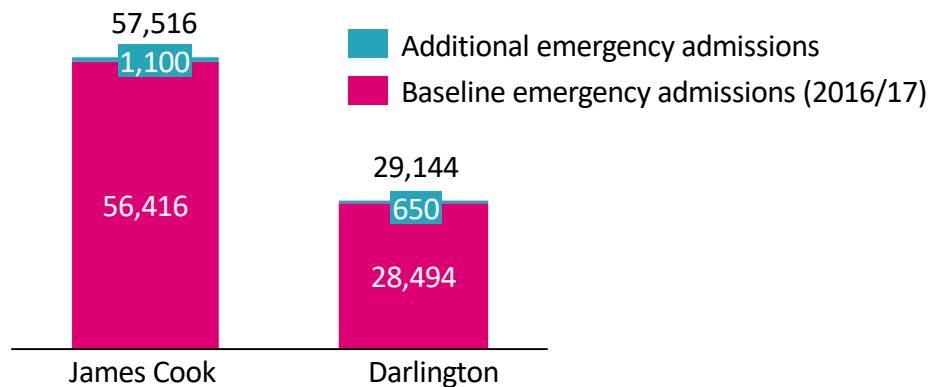
- Chart produced by CF based on Trust modelling
- Trust data from the first two months of the temporary closure indicates that the Trust had overestimated the impact: There was an average of 13 additional transfers to James Cook (equivalent to 676/annum; only 74% of predicted)**

SOURCE: Trust Yorkshire Ambulance service impact assessment; Trust business case, Sep 2018

3 The impact of implementing the new model of care on capacity at James Cook and Darlington hospital will need to be further developed

Trust planning to date	CF analysis	Recommendations
<ul style="list-style-type: none"> The Trust anticipates that approximately 1900 patients/annum will need to be diverted to other A+Es (approx. 10%), and the majority will require admission to hospital The Trust travel time analysis forecasts that 60% of these patients will transfer to James Cook (1,100); 35% of these patients will transfer to Darlington hospital (650); and the remaining 5% to York and Harrogate The Trust has made temporary changes to A+E, ward and ITU capacity and staffing at James Cook to accommodate these changes The Trust has also been working closely with County Durham and Darlington NHS Trust to prepare for the temporary closure 	<ul style="list-style-type: none"> ✓ Review of the impact of anticipated additional patients against baseline A+E attendances indicates an increase of 1% across both A+E departments and an increase in emergency admissions across both hospitals of about 2% (Which is well within the trust capacity tolerance) ✓ James Cook saw 94% of patients in A+E within four hours between April 2018-Jan 2019 which indicates that this increase should not have a significant impact on patient waiting times ✓ This modelling is supported by initial data from the temporary closure: An additional 7 beds at James Cook were utilised by patients from Friarage catchment area; this amounts to <1% of James Cook bed capacity ✓ However an additional 2 beds were required at James Cook intensive care unit to accommodate Friarage patients with life threatening situations 	<ul style="list-style-type: none"> Analysis of Darlington and James Cook current bed occupancies (particularly during Winter months) indicates that detailed planning with both hospitals will be required to ensure that the increase in patients can be safely managed It will be vital to ensure that James Cook maintains adequate intensive care unit capacity

Forecasted changes in James Cook and Darlington admissions Emergency admissions/annum



- Chart produced by CF based on Trust and publically available data
- Forecasting predicted an additional 2% emergency admissions at James Cook and Darlington as a result of the changes at Friarage
- **Data from the temporary closure indicates less impact at James Cook than predicted (<1% increase)**

SOURCE: Trust DMS impact assessment; Trust business case, Sep 2018; HED Data; Trust temporary closure weekly reports

4 Review of the Trust’s planning suggests that proposed changes to patient pathways will maintain patient safety

Area of potential concern	Trust response	CF analysis of response	Recommendations
The Clinical Senate raised the query, “How will patients at Friarage out of hours who develop life-threatening situations be safely transferred to James Cook?”	<ul style="list-style-type: none"> • Consultants will review all patients admitted Friarage to ensure that those who are at risk of developing life-threatening situations are not admitted • An emergency team in place 24/7 will be able to stabilise patients who do unexpectedly deteriorate and these patients will be transferred by ambulance to James Cook • The ambulance station is a few 100m from the Friarage which will minimise the ambulance response time 	<ul style="list-style-type: none"> ✓ This appears to be a robust approach ✓ Learning from the temporary closure to date has demonstrated that when patients did deteriorate at Friarage (one child and one adult during the first week), these patients were safely transferred ✓ During the temporary closure a child arrived with a battery lodged in their throat. The patient was assessed by a nurse practitioner in the Urgent Treatment Centre and an x-ray carried out. The child was then transferred to James Cook A+E and the battery removed within 29 minutes. The specialist Ear, Nose and Throat (ENT) team at James Cook “commended the UTC nurse for rapid assessment and expedition of the pathway” ✓ Additionally a clinical audit of paediatric attendances at the urgent treatment centre over the first two weeks of the temporary closure “demonstrated patient safety, positive outcomes and robust pathways” 	<ul style="list-style-type: none"> • It will be vital that the Trust continues to review all transfers to ensure their standard operating protocols are upheld and refined where necessary
Will increased travel time for patients who have to travel to an alternative A+E impact on patient safety?	<ul style="list-style-type: none"> • The Trust has modelled that under the new care model, of those 10% of current patients who need to attend an alternative A+E, 12% will have to travel >40mins by car with <2% having to travel >1hr 	<ul style="list-style-type: none"> ✓ The actual increase in travel time for emergencies is likely to be less than modelled as emergencies would be transported by ambulance rather than by patient’s own transport ✓ Time critical medical emergencies already bypass Friarage so this increased travel time should not impact on patient safety ✓ The Sheffield review of five A+Es which were closed found no evidence of increase in death rate from emergency illnesses despite a small increase in average travel time 	

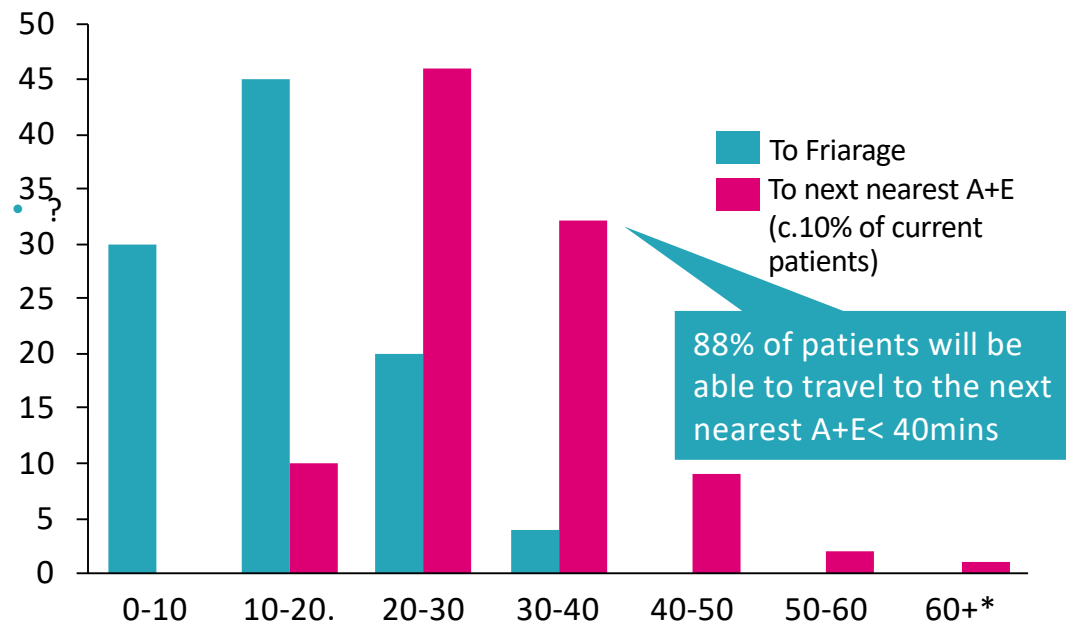
SOURCE: Yorkshire and the Humber Clinical Senate review of Friarage Hospital Services, February 2019; “Closing five Emergency Departments in England between 2009 and 2011: the closED controlled interrupted time-series analysis” Knowles et al, 2018 School of Health and Related Research (SchARR), University of Sheffield

4 CF analysis supports the Trust's view that the new model of care will not have a significant impact on travel times for patients (1/2)

- The Trust has modelled the change in **actual** travel times for the proportion of patients who would have to travel to another A+E under the new model of care using the following approach: it reviewed how many current patients travel to Friarage A+E from the different postcodes surrounding the hospital. It assessed average travel time by car from the most populous part of each postcode sector. It then assessed the new travel time for these patients if they have to bypass Friarage
- The Trust modelling shows that **12% of patients who have to attend another A+E will have to travel >40 mins** (226 additional patients/year compared to current) and 1% >1hr (19 additional patients/year compared to current)
- CF undertook its own analysis of travel times based on travel times from their registered GP practice. **This broadly supports the Trust's own analysis** showing that 3% of patients who have to attend another A+E will have to travel >40 mins (19 additional patients/year compared to current) and no additional patients will have to travel >1hr

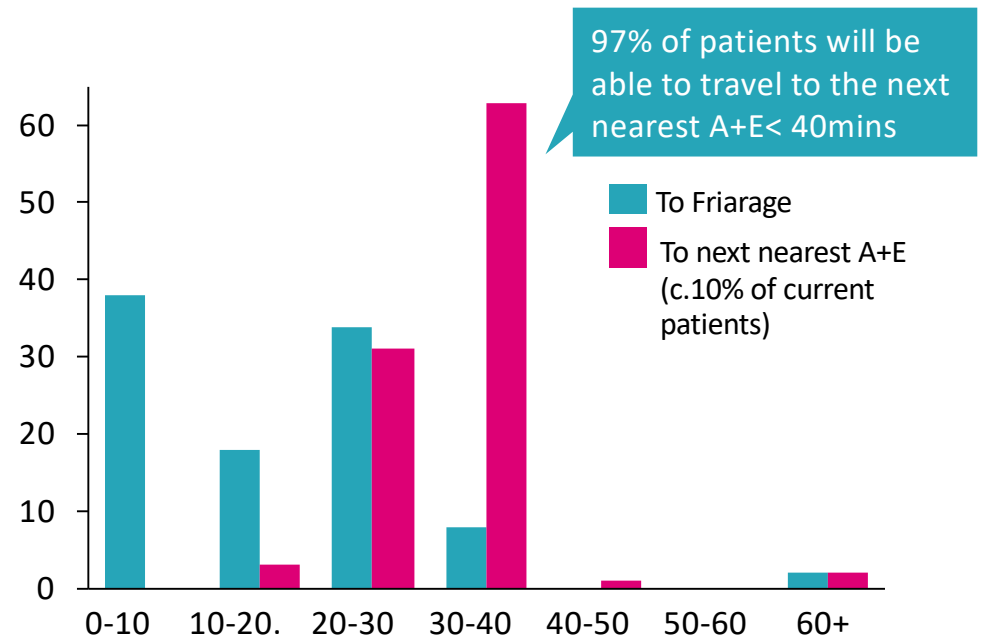
Travel time for patients in Friarage catchment area (Trust analysis)

% of patients with different off peak car travel times (minutes)



Travel time for patients in Friarage catchment area (CF analysis)

% of patients with different off peak car travel times (minutes)



SOURCE: Trust travel time analysis and supporting methodology statement; HED data and google map travel time analysis.

* Trust analysis potentially underestimates current travel times from rural settings due to measuring travel time from the most populous area of the postcode

4 CF analysis supports the Trust's view that the new model of care will not have a significant impact on travel times for patients (2/2)

- CF analysis (Exhibit 1) demonstrates that **affected patients will have to travel from a range of 0-30 mins additional time to the next nearest A+E (average 13.5 mins)**
- A small number of patients who already live >1hr from Friarage (e.g. Hawes) may not in fact be impacted by the changes at Friarage as they live equidistant between the Friarage and Darlington.** Google map analysis (off peak) indicates a travel time from Hawes to both Darlington and Friarage of 64 mins (Exhibit 2)
- Patients who have life threatening illnesses where rapid access to medical care will not be affected as these patients are already treated by specialist teams at James Cook and Darlington. This includes patients who have had major trauma, pregnancy emergencies, heart attacks and strokes.**
- Ambulances paramedics will continue to provide the initial urgent treatment for these patients whilst they are being transported to the specialist hospital

Exhibit 1-Additional travel time if cant be treated at Friarage (CF analysis)

Increased travel time for those who have to travel to another hospital	Affected patients/week
0-10mins	16
10-20mins	6
20-30mins	6
>30mins	0%

Exhibit 2- Travel time from different locations in Yorkshire Dales

	Friarage	James Cook	Darlington
HAWES	35.4 Miles 1 Hour 4 Mins	50.8 Miles 1 Hour 27 Mins	40 Miles 1 Hour 4 Mins
REETH	26.6 Miles 46 Mins	41.6 Miles 1 Hours 2 Mins	24.8 Miles 44 Mins
RICHMOND	15.9 Miles 30 Mins	30.9 Miles 43 Mins	14 .1 Miles 25 Mins
LEYBURN	18.9 Miles 34 Mins	41.9 Miles 57 Mins (shorter route 35.9 miles but takes 1hr 2 mins)	25.1 Miles 39 Mins





SOURCE:HED data; Google map off peak travel time analysis

4 CF analysis suggests that the Trust plans will limit the impact of the closure on Friarage's current workforce





Staffing group	Implementation plan	Independent analysis	Recommendations
Critical care nurses	<ul style="list-style-type: none"> The Trust has a “no redundancy policy” Offered jobs at James Cook ITU with financial support to cover additional commuting time Alternatively offered training and support to take up new roles at Friarage including as emergency nurse practitioners 	<ul style="list-style-type: none"> ✓ Learning from the temporary closure indicates that the majority of critical care nurses have transferred to James Cook ✓ Others have been offered alternative roles at the Friarage 	<ul style="list-style-type: none"> Maximise opportunities to train and retain nurses as emergency nurse practitioners Provide incentives to support staff to transfer to James Cook and/or to transfer to new roles at Friarage when appropriate
A+E medical staff	<ul style="list-style-type: none"> Most already work principally at James Cook Others will be offered roles there Will support training and development of new advanced nurse practitioners 	<ul style="list-style-type: none"> ✓ The Trust's approach during the temporary closure of “A+E consultants continuing to work initially in the UTC will support emergency nurse practitioners to be trained 	
Surgical and theatre nurses	<ul style="list-style-type: none"> Staff are being offered the opportunity to transfer to James Cook and to work together on specific wards Staff who do not wish to transfer are being offered opportunities to work on alternative surgical wards at the Friarage hospital 	<ul style="list-style-type: none"> ✓ Feedback from Trust stakeholders indicates that staff are reassured that they would be able to stay working together on the same ward. This has helped facilitate a smooth transfer during the temporary closure 	
Existing anaesthetists	<ul style="list-style-type: none"> Will be required to staff rota in hours and to support planned surgery 	<ul style="list-style-type: none"> ✓ Feedback from current anaesthetists was that they are happy with the proposed approach 	

SOURCE: Discussions with Friarage Service manager, Head of Nursing and Clinical director

The review concludes that the temporary new model of care will enable the Trust to deliver safer care in the context of its workforce challenges (1/2)

Key line of enquiry	Conclusion	Assessment
1 What is the new model of care?	The model of care reflects an innovative approach which moves beyond the Urgent Treatment Centre model and maximises access to care for local people	
2 Does it address the issues highlighted in the case for change, i.e. does it ensure the delivery of safer care in the context of the workforce challenges?	The review concludes that the model of care enables delivery of safer care at the Friarage in the context of the workforce challenges	
3 Are the assumptions underlying the model's successful delivery robust?		
a) Are modelled changes to patient attendances at Friarage and surrounding hospitals robust?	The review supports the Trust's assumptions around changes in activity patterns	
b) Can the Trust recruit and retain adequate workforce to deliver the model?	Training and where necessary recruiting emergency nurse practitioners to operate the Urgent Treatment Centre 24/7 may be challenging. Moving to a 16 hour model would reduce the workforce requirement whilst minimising impact on patient access	
c) Will James Cook and Darlington hospitals have the capacity to support the effective delivery of the model?	The observed impact on James Cook and Darlington hospitals of the temporary closure is to date in keeping with the prior modelling the Trust has carried out. It will be vital that James Cook maintains adequate intensive care capacity to support additional Friarage patients	

This review concludes that the temporary new model of care will enable the Trust to deliver safer care in the context of its workforce challenges (2/2)

Key line of enquiry	Conclusion	Assessment
d) Will the Yorkshire ambulance service have the capacity to support the effective delivery of the model?	Data from the temporary closure indicates that the impact may actually be less than has been modelled. However the review was not able to validate findings with the Yorkshire ambulance service	
4 Have the wider risks associated with implementing the new model been adequately assessed?		
a) Will changes to patient pathways maintain patient safety?	Review of the Trust's planning indicates that patient pathways have been developed robustly and will maintain patient safety, although implementation needs to be monitored	
b) What impact will the model have on patient travel times?	Independent analysis supports the Trust's analysis that the new model of care will have a small impact on travel times for a minority of patients, but this will not impact on patient safety	
c) What impact will it have on the existing workforce at the Friarage?	Review of the Trust's planning indicates that the Trust has implemented plans to minimise the impact of this new model of care on the existing Friarage workforce with positive effect	

There are a number of recommendations to support successful implementation of this model and reduce its risks

1. The Trust needs to focus on **retaining and developing** existing Friarage nurses as **emergency nurse practitioners**
2. The Trust should consider a **national recruitment drive** for emergency nurse practitioners
3. If the Trust is unable to sustainably staff the Urgent Treatment Centre 24/7; a **16 hour opening would limit impact** on patient access
4. The Trust should carry out **detailed planning with James Cook and Darlington** and the **Yorkshire ambulance service** to ensure that the ongoing impact of the changes can be managed effectively during predicted busy periods. This includes having adequate intensive care capacity
5. The Trust should collaborate closely with the Yorkshire ambulance service to ensure that **ambulances bring appropriate patients to the Friarage** rather than bypassing the site
6. Ongoing public communication will be vital to ensure that appropriate patients continue to attend the Friarage as opposed to choosing to attend elsewhere

Learning from elsewhere

There are opportunities to enhance the Friarage’s new model of care based on learning from the temporary closure and lessons from other hospitals in the UK and overseas

Approach to the review

Key line of enquiry	Analysis conducted
<p>What are the lessons from other hospitals which have faced similar challenges to Friarage in the UK and overseas?</p>	<ul style="list-style-type: none"> • Review of hospitals which have maintained Type I A+E provision and those that have downgraded • Research studies which review the impact of downgrading A+E services in the UK
<p>How can these lessons inform Friarage’s new model of care?</p>	<ul style="list-style-type: none"> • Learning from the Trust’s site visit to Lymington hospital • Research studies which have reviewed international health systems which have dealt with the similar challenge of sustaining emergency health services for rural populations • Discussions with national experts
<p>What are the opportunities the Friarage’s new model of care provides to enhance patient care?</p>	<ul style="list-style-type: none"> • Review of Trust papers • Discussions with Trust stakeholders • Review of learning from temporary closure



Academic evidence indicates that a balance needs to be struck between accessibility and access to specialist staff when considering the provision of services

Increasing travel time to services can have detrimental impact on patient outcomes...

- A review of academic research in this area indicates that there is some evidence that delays to starting treatment from having to travel further to hospital can lead to worse outcomes and a small increase in death rate.
- This is specifically the case for certain conditions including heart attacks, trauma and stroke and serious infections (specifically severe chest infections)
- However, a Sheffield University study of previous A+Es which changed to Urgent Treatment Centres (described below) demonstrated no increase in death rate. This difference is likely to be explained by the fact that in most of the emergency conditions (namely heart attacks, trauma and strokes) would have been already been treated at larger regional centres prior to the change

... However travelling further to obtain more specialist care tends to have a positive impact on patient outcomes

- There is some evidence that expertise of the person providing care at the hospital where the patient arrives may determine patient outcomes
- A+E care provided under the supervision of senior doctors is more effective than care provided by less experienced doctors
- There is some evidence to suggest that the presence of consultants working on the A+E 'shop floor' during the night can reduce length of stay and rates of admission
- It is widely accepted that outcomes for certain conditions – particularly strokes, heart attacks and major trauma – are better when patients are treated in specialist centres than in general hospitals.

SOURCE: The relationship between distance to hospital and patient mortality in emergencies: an observational study. *Emerg Med J* 2007;24:665–8; Impact of senior clinical review on patient disposition from the emergency department. *Emerg Med J* 2010;27:262–5, 296.; The impact of 24 h consultant shop floor presence on emergency department performance: a natural experiment. *Emerg Med J* 2013;30:360–2.

Case study: learning from five English hospitals which changed their A+E provision between 2009-2011

Context

- The University of Sheffield carried out a review in 2018 of five hospitals¹ which previously changed their emergency departments provision between 2009-2011 (Hartlepool, Bishop Auckland, Rochdale, Hemel Hempstead and Newark)
- These hospitals all changed their A+Es from Type 1 units to Urgent Treatment Centres or near equivalents because of a combination of the following reasons:
 - Many services were already being diverted away from these hospitals
 - The challenge of delivering high quality emergency services in small settings and in particular maintaining the skills of staff when not seeing many cases
 - View that more effective service could be delivered in centralised, larger centres
 - The challenge of recruiting staff to work in these small and/or rural settings (particularly A+E and intensive care doctors)

Impact

- Average travel time for patients who had to travel to an alternative site increased **by 2-17 mins** (average 9 mins)
- There was **no increase in death rate** from serious emergency conditions
- Ambulance call outs increased by an average of 14%
- Minor emergency department attendances (people who attend but are not admitted) **decreased by an average of 22%**
- Total emergency department admissions **decreased by 4%**

Key learning

- The case for change for closure of small and/or rural A+Es across the country has been similar
- Reassurance that despite increase in average patient ambulance travel time, this was not associated with increased patient mortality
- Impact of Friarage's proposed model of care on surrounding hospitals is likely to be less than they have modelled. This is supported by early data from the temporary closure

SOURCE "Closing five Emergency Departments in England between 2009 and 2011: the closED controlled interrupted time-series analysis" Knowles et al, 2018 School of Health and Related Research (SchARR), University of Sheffield

These five hospitals which changed their A+E provision between 2009-2011 served a mix of communities many with similarities to the Friarage

Location of 5 A+Es which changed their provision between 2009-11



Comparator data for these five hospitals

Hospital	Average Deprivation index	Population Density/km ² in surrounding area
Bishop Auckland	3.9	125.2
Hemel Hempstead	7.2	312.6
Newark	7.1	50.7
Rochdale	3.9	542.3
Hartlepool	3.7	277.8
Friarage Hospital for comparison	6.9	38.1

SOURCE: CF analysis of ONS data

Case study: learning from Lymington, a UK hospital which has managed to continue to treat a range of emergency conditions despite not having anaesthetic support

Context and clinical model

- Lymington is a small hospital on the South coast which has developed a similar model of emergency care to that which is proposed by Friarage
- It has never had an A+E, but operates a minor injuries unit
- It does not have an intensive care unit or anaesthetists on-site, but does review and admit patients referred by their GP if they meet certain criteria
- In particular it focuses on treating elderly frail patients and patients who require rehabilitation following accidents and surgery
- Patients can be referred by their GP between the hours of 8am-8pm, 7 days a week and the decision to admit is taken by a consultant
- The patients are supported out of hours by a junior doctor who is able to cover medical emergencies

Impact

- The hospital has only had 1 cardiac arrest in the last 12 months (indicative of the careful screening of patients who are admitted to the hospital)
- The medical and nursing team is reported to be very flexible in its ways of working

Key learning

- Lymington has been able to promote itself as providing an innovative model of emergency care. This has supported staff recruitment and retention
- The hospital is able to admit some patients for emergency treatment in the absence of an intensive care unit and on-site anaesthetist. It achieves this through the consultant-led model enabling careful screening of which patients are admitted
- An on call-junior doctor at night time is able to treat the range of medical emergencies and arrange for a patient to be transferred to a specialist hospital if required
- The hospital has struggled to recruit and retain nurses. To help solve this it has pursued a model where nurses rotate through all the wards to improve learning

Case study: learning from two similar health systems which have faced similar challenges in maintaining emergency care in rural settings

Context

Australia and Canada face similar challenges with balancing access and delivering safe patient care in the context of large, sparse rural geographies

Approaches taken

Canada

- GPs and community multi-disciplinary teams play a key role in more remote areas in identifying deterioration at an earlier stage and, where appropriate, managing patient deterioration in the community. Hospitals provide an important role in training and supporting GPs to do this
- Use of air ambulance services help to shorten travel times
- Senior doctors in some larger hospitals support rural hospitals they are paired up with. This includes the use of telehealth to support clinicians in remote places

Australia

- GPs are trained to cover emergency departments and have anaesthetic and obstetric training
- Junior doctors have to spend a proportion of their post-graduate training working in remote hospitals
- Training curriculum at both medical school and postgraduate level is focused on developing generalists to work in remote hospitals
- All junior doctors are trained in basic anaesthetic competencies
- Flexibility around working hour restrictions enables rotas to be staffed more flexibly and less staff to be required

Opportunities for the Friarage

- Explore how primary care can be supported to identify deterioration at an earlier stage and, where appropriate, to manage patient deterioration in the community
- Develop opportunities to train local GPs to staff acute medicine rota

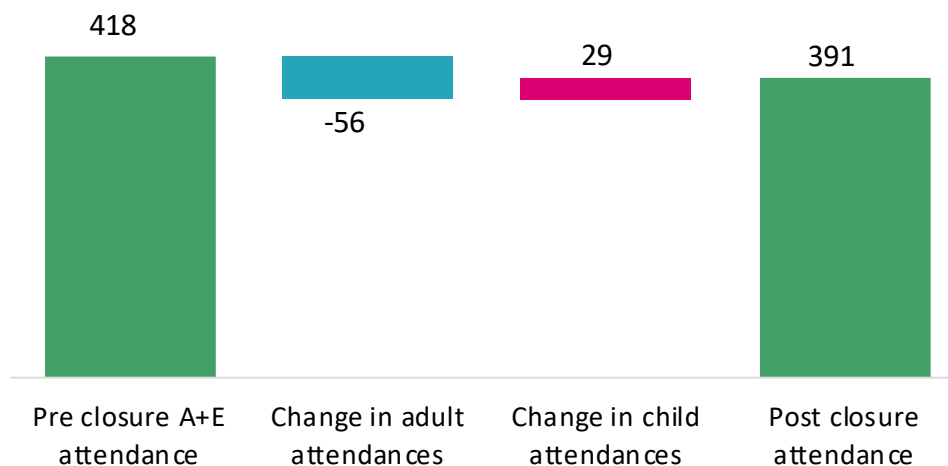
SOURCE: Successful Models of Rural Health Service Delivery and Community Involvement in Rural Health, NZ centre for rural health, 2001

The Friarage's new model of care offers new opportunities to treat children with non-life threatening situations who don't require hospital admission

- These children previously have had to travel to a different A+E as the Friarage did not have the paediatric support required to treat them under the label of an A+E. In contrast UTC regulation enables these children to be treated by nurse practitioners
- The Trust has modelled the number of additional children which the UTC could treat. CF analysis of the approach confirms the potential opportunity. The Trust reviewed the number of children treated at Friarage A+E in 2013/14 prior to it stopping treating children's illnesses; They excluded from this the children who required admission but assumed the remainder could be treated by the Urgent Treatment Centre; They calculated the difference between this and the number of children who are currently being treated at Friarage A+E (those with minor injuries)
- This calculation suggests that c.1700 additional children could be treated at the Urgent Treatment Centre compared to the current A+E (5 children/day)

Actual change in children attending under new model

Average Weekly attendances during temporary closure



- **Data from the two months of the temporary closure indicate that an additional 4 children/day were treated at the the new UTC (equivalent to c. 1500/year)***
- This amounts to a 39% increase in CYP attendances compared to 2018
- This validates the opportunity modelled by the Trust
- It is vital that public communication is maintained to ensure that families continue to bring their children for treatment where appropriate at the Friarage

SOURCE:CF analysis based on Trust modelling in Case for change and data from temporary closure; *To note paediatric attendances are likely to be higher in Winter months

The Friarage's new model of care offers the opportunity to repatriate adult patients for ongoing care and also increase provision of local planned surgery

- Review of the Trust's papers and discussions with stakeholders indicates that the new proposed model of care provides opportunities to bring a number of groups of adult patients back to the Friarage:

Repatriation of patients to Friarage for ongoing care

- The Trust proposes that spare capacity on medical wards could accommodate patients who have had initial specialist care at James Cook or Darlington Memorial to be transferred back to Friarage in their local community for ongoing treatment and rehabilitation closer to home
- **Their modelling predicted that an additional 14 patients/week could be repatriated (8x more than in 2018)**
- **During the first two months of the temporary closure an additional 10 patients/week have been repatriated to the Friarage**
- **Further planning needs to be done to maximise this opportunity**

Capacity for additional planned surgery

- The Trust also proposes that not carrying out emergency surgery will free up capacity to provide **2% more planned day case and short stay surgery at the Friarage**
- During the temporary closure whilst there has actually been a small 1% reduction in planned admissions, data is not available on changes in quantity of day surgery
- Further planning needs to be done to fully realise this opportunity

SOURCE: Trust business case, Sep 2018; Friarage temporary closure weekly report

Summary of learning from elsewhere

Key take-aways

- A+E care provided under the supervision of senior doctors is more effective than care provided by less experienced doctors
- Only hospitals serving much more remote communities than the Friarage have maintained A+Es of a similar size
- The case for change for closure of small and/or rural A+Es across the country has been similar
- The downgrade of similar A+Es to Friarage did not lead to an increase in patient death rate despite an increase in average patient travel time

Opportunities to leverage

1. The Trust should ensure that the Urgent Treatment Centre has the **capacity to manage the larger than modelled number of children attending**. This would help to mitigate the impact of the closure on travel times by enabling other patients (and their carers) to have care closer to home
2. The Trust should model and plan for the **potential opportunities to repatriate patients** from Darlington and James Cook and develop clear pathways with primary and community care to support this. This would enable patients having rehabilitation to be cared for closer to home and would limit the impact of the new care model on surrounding hospitals
3. The Trust should maximise the opportunity to increase the amount of planned and day surgery carried out at the Friarage site
4. The Trust could explore how it can **support primary care** to identify deterioration at an earlier stage and manage patient deterioration in the community
5. The Trust could consider further exploring opportunities to **train local GPs** to staff acute medicine rota
6. The Trust should learn from Lymington's success and develop and **promote the new Friarage emergency care model as an innovative model** of how to provide emergency care in small, rural hospitals. This will help to support workforce recruitment and retention

Conclusions and recommendations

Summary conclusions

Review element	Key line of enquiry	Summary conclusion
Review of case for change	What are the emergency care clinical standards and what is the potential impact on patient safety if these are not met?	N/A
	Has the Trust struggled to adequately staff rotas against clinical standards?	Yes
	Have all reasonable opportunities to resolve these challenges been explored?	Yes, but could have made further efforts to recruit
	Did the workforce issues escalate to an extent that the Trust Board was reasonable to implement a temporary closure on the grounds that the current model of care was at risk of becoming unsafe?	Yes
Review of care model	Does it address the issues highlighted in the case for change?	Yes
	Are assumptions underlying its successful delivery robust?	Yes but made a number of recommendations
	Have the wider risks associated with implementing the new model been adequately assessed?	Yes but made a number of recommendations
Review of how the model can be strengthened and further developed	What are the lessons from other hospitals which have faced similar challenges to the Friarage in the UK and overseas? How can these lessons inform the Friarage's new model of care?	Made a number of recommendations
	Are there other opportunities to enhance or maximise the new model of care?	Yes and made a number of recommendations

Summary of recommendations

Supporting the model's successful implementation

1. The Trust needs to focus on **retaining and developing** existing Friarage nurses as **emergency nurse practitioners**
2. The Trust should consider a **national recruitment drive** for emergency nurse practitioners
3. If the Trust is unable to sustainably staff the Urgent Treatment Centre 24/7; a **16 hour opening would limit impact** on patient access
4. The Trust should carry out **detailed planning with James Cook and Darlington** and the **Yorkshire ambulance service** to ensure that the ongoing impact of the changes can be managed effectively during predicted busy periods. This includes having adequate intensive care capacity
5. The Trust should collaborate closely with the Yorkshire ambulance service to ensure that **ambulances bring appropriate patients to the Friarage** rather than bypassing the site
6. Ongoing public communication will be vital to ensure that appropriate patients continue to attend the Friarage as opposed to choosing to attend elsewhere

Strengthening the model

7. The Trust should ensure that the Urgent Treatment Centre has the **capacity to manage the larger than modelled number of children attending**. This would help to mitigate the impact of the closure on travel times by enabling other patients (and their carers) to have care closer to home
8. The Trust should model and plan for the **potential opportunities to repatriate patients** from Darlington and James Cook and develop clear pathways with primary and community care to support this. This would enable patients having rehabilitation to be cared for closer to home and would limit the impact of the new care model on surrounding hospitals
9. The Trust should maximise the opportunity to **increase the amount of planned surgery carried out at the Friarage site**

Future opportunities

10. The Trust could explore how it can **support primary care** to identify deterioration at an earlier stage and manage patient deterioration in the community
11. The Trust could consider further exploring opportunities to **train local GPs** to staff acute medicine rota
12. The Trust should learn from Lymington's success and develop and **promote the new Friarage emergency care model as an innovative model** of how to provide emergency care in small, rural hospitals. This will help to support workforce recruitment and retention

Recommendations which could be taken forward at a national level to support delivery of sustainable emergency care models in small hospitals

Adapt clinical standards

- Work with the Royal Colleges of Emergency Medicine, Royal College of Anaesthetists and Faculty of Intensive Care medicine to review whether **clinical workforce guidelines and standards can be adapted for small hospitals** to enable a balance to be struck between access to specialist care and access to local support

Flexibility around staffing models

- Develop guidance with the Royal Colleges and British Medical Association on alternative approaches for low intensity, increased hours rotas for rural settings. This would enable out of hours rotas to be covered by fewer staff when the intensity of work is low

Promote training opportunities in small hospitals

- Work with Health Education England and the Royal Colleges to find ways to **enable doctors in training to spend a proportion of their training working in small hospitals**. At present many small hospitals including Friarage do not have A+E or anaesthetic trainees because of a perceived lack of support
- Work with the Medical Schools Council to ensure that all **medical students have adequate exposure to small rural hospitals** in their training

Increase availability of generalists to cross-cover rotas

- Work with the Royal College of General Practice and Royal College of Physicians to develop **opportunities to train General Practitioners to support acute medicine** and emergency departments in hospitals
- Explore with Health Education England and the Royal Colleges opportunities for **specialists to be “credentialised” in wider skills** and explore new approaches to job planning

Targeted national workforce strategy

- Problem solve with the Medical Schools Council, the Royal Colleges and Health Education England **targeted opportunities to resolve emergency care and anaesthetic specialist training vacancies**
- Review potential barriers to recruitment of **specialist trainees from overseas**

Financial support

- Whilst financial concerns have not been the driver of changes at the Friarage, small hospitals typically face financial challenges associated with lower throughput volumes. Explore opportunities with national and local regulators to provide a **supplementary block payment to Trusts to support small hospitals** to maintain emergency services
- Explore potential for financial and non-financial incentives to support **recruitment and retention** of clinicians in small hospitals

Appendix

Review team biographies



Dr Anne Rainsberry

Anne previously worked in the NHS for over 32 years and has extensive experience at all levels across the system. She has been on the front line as a Chief Executive and has undertaken a range of regional and national roles, most recently as Director of the London Region for NHS England



Alice Caines

Alice leads the CF service reconfiguration practice and has a special interest in the sustainability of small hospitals. Alice has worked on multiple acute service reconfigurations across the country, designing and implementing innovative models of care



Dr Simon Munk

Simon practiced as a medical clinician in the UK and New Zealand for eight years, principally working as an anaesthetist and intensive care doctor. He subsequently moved into operational and strategic leadership in children's mental health



Dr Jo Andrews

Jo is a Consultant Anaesthetist who has held a range of leadership and management positions, including Chief Operating Officer, Director of Strategy and Deputy Chief Executive

Sources reviewed (1/2)

Trust papers

- Clinical case for change, November 2017
- Trust and CCG business case, Sep 2018
- Presentation and briefing to Yorkshire ambulance service
- Travel time analysis, Oct 2018
- Trust response to Clinical Senate queries, February 2019
- Urgent Temporary Service Change Friarage Hospital, Quality Impact Assessment Summary, March 2019
- Friarage confidential briefing, November 2018
- Friarage public engagement report, February 2018
- Friarage presentation, March 2019
- Darlington memorial hospital modelling
- Financial summary for CCG, Dec 2018
- Temporary closure weekly report (8th April 2019)
- Lymington site visit documents

Wider papers and sources regarding the Friarage

- Clinical Senate report, February 2019
- MP Rishi Sunak statement, March 2019
- Northern Echo article "Fighting for the Friarage Hospital in Northallerton: A history of community support"
- Darlington and Stockton Times interview with Dr James Dunbar, Friarage clinical director, March 2019
- Rethinking Acute medical care in smaller hospitals, research report, Nuffield Trust, October 2018
- Richmondshire District Council response to Friarage Hospital consultation on future provision of Children's and maternity services, November 2013
- Royal College of Emergency Medicine Friarage Hospital Report, Dec 2017
- Royal College of anaesthetists invited review report South Tees NHS Foundation Trust
- Yorkshire and the Humber Clinical Senate review of Friarage Hospital Services, February 2019

Sources reviewed (2/2)

Wider context

- The relationship between distance to hospital and patient mortality in emergencies: an observational study. Emerg Med J 2007;24:665–8. [https://doi.org/ 10.1136/emj.2007.047654](https://doi.org/10.1136/emj.2007.047654)
- Impact of senior clinical review on patient disposition from the emergency department. Emerg Med J 2010;27:262–5, 296. <https://doi.org/10.1136/emj.2009.077842>
- The impact of 24 hour consultant shop floor presence on emergency department performance: a natural experiment. Emerg Med J 2013;30:360–2. [https://doi.org/ 10.1136/emermed-2012-201369](https://doi.org/10.1136/emermed-2012-201369)
- https://www.datadictionary.nhs.uk/data_dictionary/attributes/a/acc/accident_and_emergency_department_type_de.asp
- Nuffield Trust: Rethinking acute medical care in smaller hospitals, Oct 2018
- Royal College of Emergency Medicine Workforce Recommendations 2018
- Royal College of Anaesthetists Briefing, “The anaesthetic, intensive care and critical care workforce”, Dec 2017
- Centre for Workforce Intelligence 2015 Report
- NHS Staff from overseas statistics, 2018 <https://data.gmc-uk.org/gmcdata/home/#/reports/The%20Register/World%20maps/report>
- <https://www.nhs.uk/using-the-nhs/nhs-services/urgent-and-emergency-care/when-to-visit-an-urgent-care-centre/>
- “Closing five Emergency Departments in England between 2009 and 2011: the closED controlled interrupted time-series analysis” Knowles et al, 2018 School of Health and Related Research (SchARR), University of Sheffield
- Successful Models of Rural Health Service Delivery and Community Involvement in Rural Health, NZ centre for rural health, 2001
- Acute care in remote settings: challenges and potential solutions; Nuffield Trust July 2016