## A proposal to build a new centre for elective (planned) orthopaedic surgery at Colchester hospital

## Travel Impact Assessment

## Purpose of this document

This is a briefing on the emerging data for the Travel Impact Assessment (TIA). The TIA is a required element of the public consultation on proposals to build a planned orthopaedic surgery centre at Colchester Hospital.

## Summary

This is the current data on travel analysis. The key points to note are:

1. East Suffolk and North Essex NHS Foundation Trust (ESNEFT) has a catchment area for patients reaching south of Chelmsford, north of Bury St Edmunds and the border of Lowestoft.
2. There are areas of high deprivation in Tendring, Pier Ward of Colchester and central lpswich. There are areas of moderate deprivation in the north east part of Suffolk.
3. In 2018/19 ESNEFT completed 2,358 major joint procedures which will rise to around 3,336 by 2041.
4. The split of ESNEFT patients having orthopaedic planned surgery is currently 52\% Colchester, 48\% Ipswich.
5. Putting the centre at either site will increase travel for around half of the patients. Most elective pathways involve at least six visits and only one of these would be to the new centre. Locating the centre at Colchester would increase travel by $9 \%$ for the average patient ( 12 miles), compared with $14 \%$ ( 18 miles) if at Ipswich.
6. All our current patients would be able to access both hospitals by car within 60 minutes, according to the Public Health England SHAPE tool.
7. Public transport has issues currently. Travel times (where there is a suitable service route) are over two hours from the north of Suffolk to Ipswich Hospital and from the south of Tendring to Colchester Hospital. There is virtually no public transport in the south of Tendring.
8. Putting the centre at lpswich would mean a much longer journey time for some patients using public transport, particularly from Tendring.
9. We are aware that parking is an issue at both Colchester and Ipswich hospitals and we are always looking at possible solutions to this.

Therefore, the site which would appear to minimise travel impact is Colchester. This is favoured because:

- A small majority of current orthopaedic patients are served by Colchester Hospital
- Higher growth is predicted in numbers of orthopaedic patients in the Colchester Hospital catchment
- There is better public transport access to Colchester Hospital from all areas
- This would have less impact on deprived populations.

This assessment is not conclusive and requires further internal and external quality assurance / validation.

## Caveats

This data is generated from sources available to the Trust. It has not yet been through any Trust governance or quality assurance, nor had any external assurance although it has been submitted to both Essex and Suffolk County Councils for their advice. It should therefore be treated with caution.

We are working with our partners in both Suffolk and Essex Healthwatch to better understand the impact of our proposal on travel for patients. We are doing this by surveying patients who are currently using this service. We will also gather additional information on the travel impact through feedback received during public consultation.

## Base data and modelling

The data sources used are:

1. Activity data from $2018 / 19$ in Orthopaedics. This offers a reasonable representation of patients needing hip or knee surgery in terms of age profile and area of residence
2. Activity predictions up to 2041, based on age-banded ONS data mapped onto existing patients from 2018/19
3. National Joint Registry data for benchmarking
4. Public Health England SHAPE (Strategic Health Assets Planning and Evaluation) data for deprivation and travel times. Travel time catchments assume 'worst case' rush hour travel for car journeys and weekday morning travel for use of public transport.

Current patients by geography

The map shows 2018/19 numbers of planned orthopaedic patients by post code (red = highest number of patients)


## Current travel times by car

All our current patients would be able to access both hospitals by car within 60 minutes.


## Current travel time by public transport

Almost all Colchester patients can access Colchester hospital by public transport within two hours, with the exception of residents in the southern coastal part of Tendring. A significant proportion of the northern part of east Suffolk is not well served by public transport currently.


| 20 | 40 | 60 | 90 | 120 | minutes |
| :--- | :--- | :--- | :--- | :--- | :--- |

## Deprivation

The highest areas of deprivation ${ }^{1}$ in the current catchments are in south Tendring, Ipswich central and Pier ward in Colchester. There are some areas of moderate deprivation in the northern part of east Suffolk.


- Index of Multiple Deprivation

The indicator focuses on the Index of Multiple Deprivation (IMD) from the Indices of Deprivation 2015.

The seven domains were combined using the following weights to produce the overall Index of Multiple Deprivation (IMD):

Health Deprivation and Disability (13.5\%)
Income Deprivation (22.5\%)
Employment Deprivation (22.5\%)
Education, Skills and Training Deprivation (13.5\%) Crime (9.3\%)
Barriers to Housing and Services (9.3\%)
Living Environment Deprivation (9.3\%)
NHS Ipswich and East Suffolk CCG, NHS North East Essex CCG, NHS Mid Essex CCG, NHS Great Yarmouth and Waveney CCG, NHS West Suffolk CCG, NHS South Norfolk CCG's Index of Multiple Deprivation average score is 18.87 .
The England-wide Index of Multiple Deprivation distribution is 0.48 to 92.6 with a mean value of 21.67.

Key
Values for LSOAs within the selected boundary are shown.

The colours represent the quintiles:
33.89 to 92.6
21.44 to 33.88
13.93 to 21.43
8.38 to 13.92
0.48 to 8.37

Data
Population mid-2012: 1,521,543
English Indices of Deprivation 2015

[^0]Predicted growth in patients to 2041

Population growth will differ, with 17-18\% growth in north east Essex compared to 89\% growth in Suffolk.


Growth in patient numbers will also differ across our catchment area:

Predicted patients by local authority


1,000

This will lead to 6\% more growth in activity around Colchester hospital, compared to around lpswich hospital, over the 20 years to 2041.

Orthopaedic inpatients to 2041

\% growth in activity to 2041


## Impact on travel

Orthopaedic pathways of care involve multiple visits to hospital (six or more including the procedure). A single centre will increase travel only for the procedure journey.

Travel distance


Basing the elective centre at Colchester leads to a $9 \%$ increase in travel over the whole pathway, while basing it at lpswich would lead to a $14 \%$ increase.

Travel time by car - centre at lpswich Hospital

Accessibility by car remains good for all Suffolk patients and the majority of patients in the Colchester hospital catchment.


Travel time by public transport - centre at Ipswich Hospital

In this scenario, significant areas of Tendring, the Colne Valley, south Colchester and north Chelmsford are not accessible by public transport within 2 hours. This also removes public transport access from the areas of highest deprivation in Tendring.


| 20 | 40 | 60 | 90 | 120 |
| :--- | :--- | :--- | :--- | :--- |
| minutes |  |  |  |  |

Travel time by car - centre at Colchester Hospital

Accessibility to Colchester Hospital by car is within 60 minutes for all patients in the Colchester catchment and for most patients in the lpswich catchment.


| 10 | 20 | 30 | 45 | 60 | minutes |
| :--- | :--- | :--- | :--- | :--- | :--- |

Travel time by public transport - centre at Colchester Hospital

Public transport accessibility from Suffolk is slightly reduced in this scenario. However, Suffolk is the area with fewer patients and of least deprivation.



[^0]:    ${ }^{1}$ Index of multiple deprivation (IMD) - Public Health England 2015

