Emergency Medicine Briefing: Making the Case for the Four-Hour Standard
Key messages

- In England the Four-Hour Standard was met in all types of Emergency Departments from 2004-05 until 2013-14. Annual performance remained above 90% in Type 1 EDs from 2004-05 to 2014-15.¹

- The Four-Hour Standard was introduced to the NHS in England in 2004 to combat crowding in EDs. Since its introduction there is no doubt that waiting times have been reduced.²

- Evidence for the efficacy of time-based targets is limited in the UK but more extensive overseas. A single centre UK study showed that improvements in performance against the standard were associated with reductions in mortality.³

- Several Australian studies have shown reduced mortality associated with introducing a time-based target.⁴

- Since 2015 NHS Emergency Departments in England have failed to meet the standard.

- This is a result of increasingly elderly and complex case demographics, restrictions on social care services, inadequate staffing levels and insufficient acute bed provision.

- We are often told that the reason that the NHS is unable to open more beds for patients is because of a shortage of clinical and nursing staff.

- This is only partly true because NHS data shows that in successive years, the number of medical staff in NHS hospitals has gone up while the number of available beds gone down.

- Rather, this is also because as Trusts’ finances have worsened they have come under pressure to close beds to save money. Bed occupancy rates are now routinely over 90%.

- The RCEM has argued that we should return to bed occupancy rates of 85% because this supports patient safety and Four-Hour Standard performance. The last quarter in which performance reached 95% at Type 1 Emergency Departments bed occupancy in the NHS in England stood at 85%.

- Crowded Emergency Departments have poor working conditions, increased staff burnout and reduced retention. This is known to adversely affect patient care.⁵

- Putting the necessary investment in place to maintain the Four-Hour Standard will help to minimise the costs to NHS providers associated with litigation.

- The present target has been successful in improving the resources that are available to provide emergency care for patients.

- If the Four-Hour Standard were to be replaced, we would need to explain why this would not mean a deterioration in care for patients, because politicians and managers had less incentive to prioritise the resources available to urgent and emergency care.

¹ NHS England: Quarterly time series 2004-05 onwards with Annual Jun 2018
² BMJ 2017;359:j4857 Should we scrap the target of a maximum four hour wait in emergency departments?
³ Lowering levels of bed occupancy is associated with decreased inhospital mortality and improved performance on the 4-hour target in a UK District General Hospital.
⁴ The National Emergency Access Target (NEAT) and the 4-hour rule: time to review the target & Report on the 4-h rule and National Emergency Access Target (NEAT) in Australia; time to review & Emergency department overcrowding, mortality and the 4-hour rule in Western Australia
⁵ Occupational burnout levels in emergency medicine - a stage 2 nationwide study and analysis
Background

- In July 2000 the then Labour Government published The NHS Plan, a plan for investment, a plan for reform. As Prime Minister Tony Blair described it, this was a “genuine opportunity to rebuild the NHS for the 21st century” and a commitment to increasing NHS spending by a third in real terms over five years.  

- To prepare the plan the Department of Health ran a consultation. 152,000 members of the public and 52,000 NHS staff responded alongside a number of focus groups.

- Much of what these respondents had to say involved a clear focus on waiting times. More than six in ten people thought patients had to wait too long in Emergency Departments. As a result, The NHS Plan made the following commitment:

  “By 2004 no-one should be waiting more than four hours in accident and emergency from arrival to admission, transfer or discharge.”

- In 2004 this target was modified from 100% to 98% to allow ‘clinical exceptions’ for example, patients undergoing active resuscitation or those who deteriorate unexpectedly.

- In December 2007 NHS Scotland set a target that 98% of new and unplanned return attendances at an A&E service should be admitted, transferred or discharged within four hours.

- In 2013, the Scottish Government introduced a new HEAT target to support the sustainable delivery of four-hour A&E performance all year round. The first target milestone was for 95% of patients to wait no more than 4 hours from arrival to admission, discharge or transfer for accident and emergency treatment by the year ending September 2014.

- From 2015, Local Delivery Plan (LDP) Standards were set and agreed between the Scottish Government and NHS Boards. This set the standard at 95% of patients to wait no longer than 4 hours from arrival to admission, discharge or transfer for A&E treatment. Boards to work towards 98%.

- NHS Wales adopted a 95% target in 2005 with a view to achieving it by March 2006.

- The NHS in Northern Ireland adopted a 95% target in June 2006 with a view to achieving it by March 2008.

- The NHS in England revised the four-hour standard to 95% in 2010.
Is the Four-Hour Standard Achievable?

- There has been periodic policy discussion for several years about removing or replacing the Four-Hour Standard in different parts of the UK.\textsuperscript{14}

- While there are a number of different reasons for this, much of the background to this discussion, is that with some notable exceptions, in most parts of the UK this standard is not being achieved.

- However, the Royal College of Emergency Medicine takes the view that it would be a mistake to conclude on this basis that a high degree of compliance with the Four-Hour Standard is not possible.

- On the contrary, the available evidence suggests that with right level of investment these targets remain valid practical objectives that improve patient care. This issue will be explored further below.

- For example, if we take each of the four nations of the UK in turn, the publicly available evidence shows:

  - In England, the Four-Hour Standard was met continuously for all types of Emergency Departments from 2004-05 until 2013-14.\textsuperscript{15} Moreover, annual performance remained above 90% in Type 1 Emergency Departments from 2004-05 to 2014-15.\textsuperscript{16}

  - In Scotland, the NHS Scotland complete figures show that in from July 2007 until May 2018 (131 months) performance was above 95% for 65 months and above 90% for 123 months. Figures for ED only performance show that performance was above 95% for 53 months and above 95% for 121 months.\textsuperscript{17}

  - In Wales, from June 2006 until June 2018 (145 months) performance was above 95% for 16 months, above 90% for 49 months and above 85% for 99 months.\textsuperscript{18}

  - In Northern Ireland, performance reached 88% in 2007-08 and 2008-09 but has not been above 80% since 2010-11.\textsuperscript{19} Nonetheless, the Northern Ireland Audit Office acknowledged in 2008 that significant progress had been made since the introduction of and focus on waiting time targets.\textsuperscript{20}

\textsuperscript{14} Hansard: Secretary of State for Health Jeremy Hunt Mental Health and NHS Performance 9\textsuperscript{th} January 2017 & Review of Targets and Indicators for Health and Social Care in Scotland & HSJ: Big beasts back debate but warn ditching four hour target too dangerous & HSJ: Stevens sets out 10 year plan priorities & NHS Labour Conference debate 2018 Targets and the 10 year plan: meet, reform or scrap?
\textsuperscript{15} NHS England: Quarterly time series 2004-05 onwards with Annual June 2018
\textsuperscript{16} NHS England: Quarterly time series 2004-05 onwards with Annual June 2018
\textsuperscript{17} ISD Scotland: Emergency Department Activity and Waiting Times published 3\textsuperscript{rd} July 2018
\textsuperscript{18} StatsWales > Health and social care > NHS hospital waiting times > Accident and emergency
\textsuperscript{19} Northern Ireland Department of Health and Social Care Hospital statistics emergency care activity 2009/10 to 2016/17 & Northern Ireland Department of Health: Hospital statistics emergency care activity 2017/18
\textsuperscript{20} Transforming Emergency Care in Northern Ireland

Royal College of Emergency Medicine September 2018
Does the Four-Hour Standard Benefit Patients?

- The Four-Hour Standard was introduced to the NHS in England in 2004 as a measure to combat crowding and Exit Block in hospital Emergency Departments. Since its introduction there is no doubt that waiting times have been reduced.\(^{21}\)

- Crowding in Emergency Departments is consistently associated with increased mortality and long hospital stays.\(^{22}\) Full Emergency Departments also lead to ambulances queuing outside hospitals, unable to offload and attend other emergencies.

- Patients admitted through crowded Emergency Departments are more likely to be admitted to the wrong sort of ward, receive less good care, and have longer inpatient stays.\(^{23}\)

- Before the target was introduced Emergency Departments were often full, waiting times were long, and care was poor. Frail elderly patients had lengthy delays, with inadequate nursing and medical care.

- Crowded Emergency Departments also have poor working conditions, increase staff burnout and reduced retention. This is known to adversely affect patient care.\(^{24}\)

- Evidence for the efficacy of time-based targets is limited in a UK context but more extensive overseas. A single centre UK study showed that improvements in performance against the standard were associated with absolute reductions in mortality in admitted patients.\(^{25}\)

- Several Australian studies that have evaluated time-based targets have shown reduced mortality associated with introducing a time-based target.\(^{26}\) New Zealand’s six-hour target has also been associated with decreased mortality.\(^{27}\)

- The Royal College of Emergency Medicine takes the view that the Four-Hour standard has proven to be a powerful lever to improve staffing and bed management, establish short stay units near Emergency Departments, and develop ambulatory care units.

- These allow patients to be assessed away from the Emergency Department and have a shorter length of stay than would occur with an admission to an inpatient bed. Implementation has been associated with more doctors employed in emergency departments, better access to investigations, and better hospital bed management.\(^{28}\)

- This is why the Royal College of Emergency Medicine stated in 2014:

  “Before the introduction of the four-hour standard, resources available to A&Es were grossly inadequate. This standard protects all A&E patients.”\(^{29}\)

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\(^{21}\) BMJ 2017;359:j4857 Should we scrap the target of a maximum four hour wait in emergency departments?

\(^{22}\) Increase in patient mortality at 10 days associated with emergency department overcrowding & Association between waiting times and short term mortality and hospital admission after departure from emergency department: population based cohort study from Ontario, Canada & The association between hospital overcrowding and mortality among patients admitted via Western Australian emergency departments & Increasing wait times predict increasing mortality for emergency medical admissions

\(^{23}\) Emergency department crowding: towards an agenda for evidence-based intervention

\(^{24}\) Occupational burnout levels in emergency medicine—a stage 2 nationwide study and analysis

\(^{25}\) Lowering levels of bed occupancy is associated with decreased inhospital mortality and improved performance on the 4-hour target in a UK District General Hospital

\(^{26}\) The National Emergency Access Target (NEAT) and the 4-hour rule: time to review the target & Report on the 4-h rule and National Emergency Access Target (NEAT) in Australia: time to review & Emergency department overcrowding, mortality and the 4-hour rule in Western Australia

\(^{27}\) Impact of a national time target for ED length of stay on patient outcomes

\(^{28}\) Implications of England’s Four-Hour Target for Quality of Care and Resource Use in the Emergency Department

\(^{29}\) RCEM Challenging the myths around A&E to rebuild emergency care 2014

Royal College of Emergency Medicine September 2018
Why is the Four-Hour Standard Not Being Achieved?

- Since 2015 NHS providers in England have failed to meet the standard.

- There are a number of reasons for this that can be broadly described as increasingly elderly and complex case demographics, restrictions on social care services, inadequate staffing levels and insufficient acute bed provision.\(^{30}\)

- We are often told that the reason that the NHS is unable to open more beds for patients is because of a shortage of clinical and nursing staff.\(^{31}\)

- While there is an element of truth in this, it is only part of an answer because the NHS’s own figures show that in successive years the number of clinical and nursing staff in NHS hospitals has generally gone up\(^{32}\) while the number of available beds has continued to go down.\(^{33}\)

- Rather, this is also a reflection of the fact that as Trusts financial positions have worsened they have come under increasing pressure to close beds in order to save money.\(^{34}\)

- As such bed occupancy rates have continued to rise and are now routinely over 90%.\(^{35}\)

- The Royal College of Emergency Medicine has consistently argued that we should return to bed occupancy rates of 85% because this supports patient safety; but is also supports Four-Hour Standard performance.\(^{36}\)

- The last quarter in which performance reached 95% at Type 1 Emergency Departments bed occupancy in the NHS in England stood at 85%.\(^{37}\)

- This is why as part of our Vision 2020 the Royal College of Emergency Medicine has argued for the provision of an additional 5,000 hospital beds to return bed occupancy rates to 85% and tackle ‘Exit Block’.

- Significantly, as part of their recent report The NHS Funding Settlement: Recovering Lost Ground, NHS Providers reached a similar conclusion. They also argued that there is a strong relationship between bed occupancy and Four-Hour Standard performance.

- NHS Providers calculations are based on a different starting point, so their figures are slightly different. They are nonetheless illustrative. They estimate that to restore full compliance with the Four-Hour Standard 7,825 additional beds are necessary at an estimated annual cost of £894 million as part of the new NHS funding settlement.\(^{38}\)

- As such, the Royal College of Emergency Medicine takes the view that it would be perverse to decide to abandon the Four-Hour Standard, precisely at the point that the funds become available to restore system performance.

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\(^{30}\) BMJ: Adrian Boyle and Ian Higginson: This A&E crisis was entirely predictable and partly preventable 4\(^{th}\) January 2018.

\(^{31}\) HSJ: Simon Stevens: NHS will be forced to open extra beds if DTOCs aren’t cut

\(^{32}\) NHS Digital: NHS Workforce Statistics - March 2018 HCHS staff in NHS Trusts and CCGs March 2018 - Excel tables

\(^{33}\) NHS England: Bed Availability and Occupancy Data – Overnight Beds Time-series 2010-11 onwards

\(^{34}\) See for example Humber, Coad and Vale STP & Leicester, Leicestershire and Rutland STP & Our Dorset STP & Nottingham and Nottinghamshire STP & NHS England Shared Planning Guidance 2017-19

\(^{35}\) NHS England Winter Daily SitRep Data 2016-17 & 2017-18

\(^{36}\) Royal College of Emergency Medicine Winter Flow Project

\(^{37}\) Second Quarter 2012-13 See NHS England Bed Availability and Occupancy Data - Overnight

\(^{38}\) NHS Providers The NHS Funding Settlement: Recovering Lost Ground

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What Impact does a Crowded ED have on Staff

- Crowded Emergency Departments have poor working conditions, increased staff burnout and reduced retention. This is known to adversely affect patient care.\(^3^9\)

- This is reflected in vacancy rates for permanent clinical posts. At 15.6% Emergency Medicine has the highest unfilled vacancy rate of all the medical specialties.\(^4^0\)

- On a practical level this is also reflected in the percentage of Emergency Care Practitioners who have reported feeling unwell as a result of work-related stress.

- The NHS Staff Survey is the largest workforce survey in the world and has been conducted every year since 2003.\(^4^1\)

- Data from the NHS Staff Survey shows that the percentage of Emergency Care Practitioners who reported feeling unwell as a result of work-related stress, has increased from 30% in 2012 to 42% in 2017, having been as high as 47% in 2015 and 2016.\(^4^2\)

- The last quarter when the Type 1 Emergency Departments in England achieved 95% percent performance against the Four-Hour Standard was Quarter 2 2012-2013.\(^4^3\)

- What this suggests is that if you do not ensure resources are provided to meet demand, Four-Hour performance and staff wellbeing both suffer, and both will have a negative effect on patient care.

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\(^{3^9}\) Occupational burnout levels in emergency medicine—a stage 2 nationwide study and analysis

\(^{4^0}\) Health Education England: Facing the Facts, Shaping the Future

\(^{4^1}\) NHS Staff Survey 2017 National Briefing March 2018

\(^{4^2}\) National NHS Staff Survey Co-ordination Centre

\(^{4^3}\) NHS England: Quarterly time series 2004-05 onwards with Annual June 2018
Four-Hour Standard Performance and the risk of litigation

- Between 2006-7 and 2016-17 the number of new clinical negligence claims made against the NHS in England doubled from 5,300 per annum to 10,600.\textsuperscript{44}

- The associated costs have gone from £0.4 billion in 2006-7 to £1.6 billion in 2016-17.\textsuperscript{45}

- Spending by Trusts in England on clinical negligence is forecast to increase from 1.8% of Trust income at present to 4% in 2021 – estimated to be £3.2 billion.\textsuperscript{46}

- Almost 40% of clinical negligence claims against Trusts are related to failure or delay to diagnose or treat a patient.\textsuperscript{47}

- In 2016-17 of 12,300 cases agreed by NHS Resolution 13% of these related to Emergency Medicine. Of this 9% of the damages awarded related to EM.\textsuperscript{48}

- Of the total £1.6 billion costs in 2016-17 £974 million was accounted for by damages and £602 million by legal costs.\textsuperscript{49}

- From this we can estimated that EM accounted for £87 million in damages and £54 million pounds in costs in the same year.

- In Managing the costs of clinical negligence against trust (2017) the National Audit Office took the view that:

  “declining performance against waiting time standards is one factor which increases the risk of future claims from delayed diagnosis or treatment”.\textsuperscript{50}

- All other things being equal, what this indicates is that putting the necessary investment in place to maintain the Four-Hour Standard will help to minimise the costs to NHS providers associated with litigation.
What are the Limitations of the Four-Hour Standard

- The 2013 the Foundation Trust Network (now NHS Providers) report, Emergency care and emergency services: view from the frontline, argued that the four-hour performance target and any failures to meet it were only a proxy for system-wide performance failures.\(^{51}\)

- The report noted strong support among its members for the 95% A&E wait-time target as a good and effective barometer of the overall health of the whole emergency and urgent care pathway (ie, not just hospital ED performance).

- Similarly, in 2017, Adrian Boyle and Ian Higginson argued in the British Medical Journal that the Four-Hour Standard is “intuitive, relatively robust to gaming, and applies to all patients”. Moreover, in their view there was “no realistic alternative”\(^{53}\)

- As recently as 31st July Taj Hassan, President of the Royal College of Emergency Medicine has been quoted as saying:

  "The four-hour standard is undoubtedly one of the most resilient metrics of system performance ever devised. It’s as powerful and relevant now as it was 15 years ago. We also know system performance is proven to have a direct impact on patient safety and timely clinical care.”\(^{54}\)

- Critics of the Four-Hour Standard have argued that in fact it leads to gaming\(^{55}\) and that it does not benefit all patients equally as important patient groups, such as those requiring critical care, the elderly and mental health patients, present with the most time-sensitive conditions.\(^{56}\)

- There are a number of basic problems with these criticisms. Firstly, while not all groups have benefitted from the target to the same extent (patients with mental health problems for example) the crucial issue determining outcomes is always with onward referral to services outside the Emergency Department not within it.

- Secondly, what gaming that does take place is the fault of the way the target is managed and implemented rather than the target itself.\(^{57}\)

- Thirdly, given that gaming or manipulation is an inherent risk with setting any kind of target, proponents of an alternative would need to explain why what was being proposed is more resistant to gaming than that which it seeks to replace, and what negative consequences for patients this replacement might have.

- Finally, as we have seen, the present target has been successful in improving the resources that are available to provide emergency care for patients. If the Four-Hour Standard were to be replaced, we would need to explain why this would not mean a deterioration in care for patients, because politicians and managers had less incentive to prioritise the resources available to urgent and emergency care.

\(^{51}\) The Health Foundation: Evidence scan: The impact of performance targets within the NHS
\(^{52}\) The Health Foundation: Evidence scan: The impact of performance targets within the NHS
\(^{53}\) BMJ 2017;359:j4857 Should we scrap the target of a maximum four hour wait in emergency departments?
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