HEALTHCARE SAFETY INVESTIGATION BRANCH

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Summary

Transfer of a patient who had suffered a stroke to emergency care: Local integrated pilot 3

Independent report by the
Healthcare Safety Investigation Branch NI-003904
for the local integrated investigation pilot

March 2022

Providing feedback and comment on HSIB reports

At the Healthcare Safety Investigation Branch (HSIB) we welcome feedback on our investigation reports. The best way to share your views and comments is to email us at **enquiries@hsib.org.uk** or complete our online feedback form at **www.hsib.org.uk/tell-us-what-you-think**.

We aim to provide a response to all correspondence within five working days.

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About HSIB

We conduct independent investigations of patient safety concerns in NHS-funded care across England. Most harm in healthcare results from problems within the systems and processes that determine how care is delivered. Our investigations identify the contributory factors that have led to harm or the potential for harm to patients. The safety recommendations we make aim to improve healthcare systems and processes, to reduce risk and improve safety.

We work closely with patients, families and healthcare staff affected by patient safety incidents, and we never attribute blame or liability.

Considerations in light of coronavirus (COVID-19)

A number of national investigations were in progress when the COVID-19 pandemic significantly affected the UK in 2020. Much of the work associated with developing the investigation reports necessarily ceased as HSIB's response was redirected.

For this national report, while the learning described has not changed due to COVID-19, the processes HSIB used to engage with staff had to be adapted. This included fewer face-to-face interviews and interactions and an increased use of virtual interviewing. Owing to the nature of this investigation there was no need to visit clinical areas to observe work in practice.

A note of acknowledgement

We would like to thank the Patient whose experience is documented in this report, and his family. At the time of writing the report, the Patient's family did not wish to be involved in the investigation but had given their permission for the investigation to go ahead. We would also like to thank the healthcare staff who engaged with the investigation for their openness and willingness to support improvements in this area of care.

Local integrated investigation pilot

This investigation has been published as part of HSIB's local integrated investigation pilot (local pilot). The local pilot was launched to evaluate HSIB's ability to carry out effective local investigations with actions aimed at specific trusts or hospitals, while still identifying and sharing relevant national learning. After evaluation, consideration will be given as to whether this model can be implemented more widely by HSIB.

This investigation report presents the findings of one of four investigations within the local pilot. It provides the investigation's findings and makes safety recommendations and safety observations to support local improvements in patient safety. The report also identifies safety risks that HSIB might address through a potential future national investigation.

This report is intended for healthcare organisations, policymakers and the public to help improve patient safety. For readers less familiar with this area of healthcare, medical terms are explained in section 1.

Our investigations

Our investigators and analysts have diverse experience of healthcare and other safety-critical industries and are trained in human factors and safety science. We consult widely in England and internationally to ensure that our work is informed by appropriate clinical and other relevant expertise.

We undertake patient safety investigations through two programmes:

National investigations

Concerns about patient safety in any area of NHS-funded healthcare in England can be referred to us by any person, group or organisation. We review these concerns against our investigation criteria to decide whether to conduct a national investigation. National investigation reports are published on our website and include safety recommendations for specific organisations. These organisations are requested to respond to our safety recommendations within 90 days, and we publish their responses on our **website**.

Maternity investigations

We investigate incidents in NHS maternity services that meet criteria set out within one of the following national maternity healthcare programmes:

- Royal College of Obstetricians and Gynaecologists' 'Each Baby Counts' report
- MBRRACE-UK 'Saving Lives, Improving Mothers' Care' report.

Incidents are referred to us by the NHS trust where the incident took place, and, where an incident meets the criteria, our investigation replaces the trust's own local investigation. Our investigation report is shared with the family and trust, and the trust is responsible for carrying out any safety recommendations made in the report.

In addition, we identify and examine recurring themes that arise from trust-level investigations in order to make safety recommendations to local and national organisations for system-level improvements in maternity services.

For full information on our national and maternity investigations please **visit our website**.

Executive Summary

This investigation explored the following real patient safety event, looking at the local stroke emergency care pathway and the co-ordination between the Ambulance Trust and two hospital trusts involved in the event.

The safety event

The Patient, a man aged 75 years, had gone to bed at 23:30 hours and woke at 01:30 hours feeling unwell. He went downstairs and waited for his symptoms to ease. While he was waiting, his Wife woke and went to check on him. When it was clear that her husband's symptoms were not getting better, she rang NHS 111 for advice. Because of the nature of the Patient's symptoms, this resulted in the call being transferred to the 999 service. This call was made at 04:16 hours and was categorised as a Category 2 emergency response – that is, the second most urgent category.

An ambulance was allocated at 04:32 hours and arrived with the patient at 05:06 hours. The paramedics immediately recognised the symptoms of a stroke and helped the Patient into the ambulance.

Before the ambulance set off, the paramedic caring for the Patient telephoned (pre-alerted) the emergency department (ED) at Trust A, which was the nearest ED, to let them know that they were on the way with a patient who was experiencing stroke symptoms. This type of call is known as a 'pre-alert'. Trust A could not accept the Patient as its stroke service was not open between 23:00 hours and 08:00 hours. The paramedic was advised to call the ED at a neighbouring hospital, Trust B. Trust B told the paramedic that it could not accept the Patient, as he was outside the timeframe for immediate stroke treatment and should therefore be taken to Trust A. Trust A again stated that it could not accept the Patient. The paramedic contacted Trust B for a second time and it agreed to accept the Patient.

When the ambulance arrived at Trust B's ED, the Patient was held in the ambulance for 40 minutes because the ED was very busy. He then had a CT scan which confirmed that he had had an ischaemic stroke (a stroke caused by a blood clot in the brain). The Patient was taken to the intensive care unit.

The investigation found that at each trust, the ED staff had a limited understanding of the other trust's arrangements for out-of-hours stroke services. The two trusts did not have a joint arrangement for overnight emergency stroke treatment. The paramedics also found it difficult to access information about the

stroke services at each hospital, and where they should take a stroke patient between 23:00 hours and 08:00 hours.

The investigation identified that there was a delay in the initial response by the ambulance service and in the handover of the Patient's care from the paramedics to the ED. These issues were outside the scope of this investigation but will be explored in a separate HSIB investigation.

Findings

The investigation found the following:

- The Patient spent time on his own after waking with stroke symptoms, hoping that his symptoms would ease. The delay in seeking help meant that the Patient was outside of the 4.5-hour treatment window for thrombolysis (treatment with 'clot-busting' medication) by the time the paramedics arrived.

- The Patient was still within the 24-hour treatment window for consideration of thrombectomy (a procedure to remove a blood clot).

- There was no cross-trust policy in place that clearly defined which FAST-positive patients (patients who show symptoms outlined by the Face, Arms, Speech, Time acronym) should be taken to Trust B overnight. This resulted in different local interpretation of the overnight stroke arrangement.

- The different local interpretation resulted in the Patient being "double bounced" between the two hospitals. Staff stated that this was "not uncommon" but would likely resolve once a centralised regional stroke treatment unit (a hyper-acute stroke unit) is in place.

- All staff followed their own trust's policy relating to overnight stroke arrangements when responding to the paramedic's pre-alert call.

- Because of the high number of calls awaiting the allocation of an ambulance, the ambulance that responded to the incident was allocated from a neighbouring area.

- The responding paramedics knew where the nearest ED to the Patient was, but did not know about the services that Trust A and Trust B provided without accessing further resources.

- The electronic search tools accessible to ambulance crews provided inconsistent information about the availability of local stroke services. This was particularly confusing for the paramedics in the safety event, who did not routinely work in the local area.

- The paramedics recalled that hospital staff who took the pre-alert calls responded in a “frustrated” manner; this can in turn create frustration for ambulance crews.

- When the Patient arrived at the hospital, his care was not handed over within the recommended 15 minutes.

- An ED doctor stated that it was now “normal” to start a shift at 22:00 hours and see five or more ambulances queueing while they waited to hand over the care of patients. This situation worsened as winter approached.

Safety recommendations, safety observation and safety risk

Safety recommendations are directed to a specific organisation for action. They are based on information derived from the investigation and are made with the intention of preventing future similar events.

HSIB makes the following safety recommendations

Safety recommendation R/2022/185:
HSIB recommends that Trust A and Trust B update the information provided to the Directory of Service on the availability of stroke services once they have created a harmonised cross-trust stroke policy.

Safety recommendation R/2022/186:
HSIB recommends that the Ambulance Trust works with Trust A and Trust B to ensure that their local stroke policies are aligned and direct ambulance crews to the most appropriate service.

Safety recommendation R/2022/187:
HSIB recommends that Trust B works collaboratively with Trust A to develop a harmonised, cross-trust stroke policy with a clearly defined joint emergency department overnight stroke protocol for FAST-positive patients.

HSIB makes the following safety observation

Safety observation O/2022/154:
It may be beneficial for the clinical commissioning group to provide oversight of stroke pathways until a hyper-acute stroke unit is established, to ensure that there is a clearly understood pathway for FAST-positive patients between 23:00 hours and 08:00 hours.

HSIB notes the following national safety risk

The investigation noted a delay in the handover of the Patient's care from the paramedics to the emergency department. Handover delays will be explored in a future HSIB investigation.

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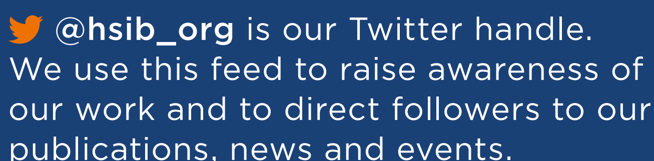
Further information

More information about HSIB – including its team, investigations and history – is available at **www.hsib.org.uk**

If you would like to request an investigation then please read our **guidance** before contacting us.



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