	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO:** 1. Rt Hon Ben Wallace MP, Secretary of State for Defence 2. Chief Executive for Capita Business Services Limited
1	**CORONER** I am Louise Hunt, Senior Coroner for Birmingham and Solihull
2	**CORONER'S LEGAL POWERS** I make this report under paragraph 7, Schedule 5, of the Coroners and Justice Act 2009 and regulations 28 and 29 of the Coroners (Investigations) Regulations 2013.
3	**INVESTIGATION and INQUEST** On 24 January 2022 I commenced an investigation into the death of Youngson John Jumbe NKHOMA. The investigation concluded at the end of the inquest . The conclusion of the inquest was; Mr Youngson Nkhoma died from the consequences of exertional rhabdomyolysis due to Sickle Cell Trait. Additionally, he was diagnosed with hypertrophic cardiomyopathy, which was a condition he died with and not from. During his application process there was a lack of questions in the online questionnaire and the Recruitment Group Medical Declaration form regarding Sickle Cell Disease and Sickle Cell Trait. It is unlikely that many candidates would know the true nature of their Sickle Cell Trait status and the failure to test candidates to confirm their status increases the risk of exertional collapse associated with Sickle Cell Trait. In 2019 there was a significant increase in commonwealth candidates but not risk assessment to compensate for the influx that would adequately identify conditions more commonly experienced by commonwealth candidates, specifically from African-Caribbean countries. Consequently, this would be more than likely have led to inadequate institutional awareness within the Recruiting Group specifically regarding JSP950 Annex N and the risks of Sickle Cell Trait. Risk Assessments were still not reviewed or amended following the collapse of the three commonwealth candidates and the death of Kamil Iddrisu. Both organisations' reporting systems were inadequate, not properly understood by all staff and therefore incorrectly used resulting in the failure to report the three collapses and the death of Kamil Iddrisu to the Defence Accident Investigation Branch, who more than likely would have conducted a thorough investigation. The pattern was not recognised and the link between Sickle Cell Trait and exertional rhabdomyolysis was missed. Following the first candidates collapse, during his appeal process, the GP's letter was sent to the Recruiting Group confirming the link between Sickle Cell Trait and exertional rhabdomyolysis. At the point of receiving the letter there was a failure to seek further medical information regarding this and the next two collapses. Additionally, the cause of death for Kamil Iddrisu on the 18/11/2019 was communicated to the Recruiting Group and the link between Sickle Cell Trait and exertional rhabdomyolysis was discovered on the 25/11/2019. However, the connection was not made to the first three collapses. Had an investigation been carried out, the trend would have more than likely been identified at this point. Despite concerns being raised by staff at Lichfield Assessment Centre, specifically requests to stop the Role Fitness Test 2km best effort run for commonwealth candidates, no formal investigations took place. Had this been carried out it would have more than likely resulted in steps being taken in a timely manner to mitigate the risks of over exertion which would have avoided the death of Youngson Nkhoma, who was unaware of is Sickle Cell Trait status.

4	**CIRCUMSTANCES OF THE DEATH** On the 01/03/2019, Mr Youngson Nkhoma submitted an online application to become an Army candidate. This application included an online Medical Questionnaire which was completed by the candidate. Youngson met the criteria and progressed onto stage 2. On the 08/05/2019 Youngson was required to complete the Recruitment Group Medical Declaration, in which a Doctor from his home country was required to complete the second half of the form. This was received by The National Recruitment Centre on the 22/05/2019. On the 29/08/2019 Youngson was booked on to attend Lichfield Assessment Centre on the 26/11/2019 . Youngson arrived in the UK on the 09/11/2019 where he stayed with his brother who was his sponsor. On the 25/11/2019 Youngson arrived at Lichfield Assessment Centre. During this day he underwent initial checks of his documentation and to ensure that he met the criteria of a minimum 10-day acclimatisation period. On the 26/11/2019 Youngson undertook the standard cognitive and physical tests in which the pre-assessment ECG showed abnormal voltage criteria and left ventricular hypertrophy. This resulted in an echocardiogram being conducted which confirmed nothing abnormal enabling him to continue with the selection process. He completed version 4 of the Waiting Room Questionnaire a Medical Self Declaration form. Within this form, Youngson did not declare any knowledge of any genetic inherited diseases, including Sickle Cell. He indicated he undertook between 6 - 8 hours of exercise per week including running and gym exercises. There was a face-to-face interview between Youngson and the Lead Clinician of Lichfield Assessment Centre where the questions and answers of the Waiting Room Questionnaire were discussed in detail. It was indicated that during these meetings there was the opportunity to discuss Sickle Cell Disease and Sickle Cell Trait. However, not all candidates may have been aware of their Sickle Cell Trait Status, and there were no tests required to confirm this. On the 27/11/2019 Youngson took part in the 800m warm up which was a lap of the course used for the 2km run to follow. The warm up was also used to familiarise candidates of the route. After the warm up, the 2km best effort run commenced which included a downhill and uphill slope. At 8:27am Youngson became unsteady and collapsed 1800m in, just after the incline of the course. He was assisted into the safety vehicle upon which an ambulance was called. Shortly after, he was removed from the vehicle and placed into a recovery position to maintain his airway, by a Specialist Medical Officer who was alerted to the incident on the way into the building. The Specialist Medical Officer reported that he understood the severity of Youngson's illness as he was only responsive to a pain stimulus on the AVPU Scale and was very cold to the touch. He removed his jacket and covered up Youngson. He noted that the outside temperature was 9℃. At 8:44am the ambulance arrived, and Youngson was taken to Good Hope Hospital, accompanied by Litchfield assessment centres lead interviewer, arriving at 9:53am. Youngson was taken to the Intensive Care Unit where he was treated for severe rhabdomyolysis due to Sickle Cell Trait. Despite best efforts, Youngson died on the same day around 8:00pm. On the same day, Lichfield's Assessment Centre Manager reported Youngson's incident through CASPER and INCREP systems , which were sent to the Recruiting Group. On the 28/11/2019, after Youngson's death the Defence Accident Investigation Branch were informed of the deaths of Kamil Iddrisu and Youngson Nkhoma. This was the first account of the Defence Accident Investigation Branch being informed of Kamil's death. After this notification, at around 3pm, the Role Fitness Test 2km run was ordered to be stopped. On the 25/11/2019, after Kamil's death, the Recruiting Group were informed that Kamil collapsed due to exertional rhabdomyolysis associated with Sickle Cell Trait. Prior to Youngson's death, two commonwealth candidates from West African and Caribbean countries, collapsed at Lichfield Assessment Centre and had become extremely unwell and hospitalised. The first candidate was treated for exertional rhabdomyolysis caused by Sickle Cell Trait. This was communicated to the Recruiting Group by a GP's letter dated 22/10/2019 during his appeal process. The second candidate was treated for acute exertional myocardial necrosis which was caused by Sickle Cell Trait. This was not known until the Service Inquiry was done. As well as these two candidates, there was a third candidate from Western Africa who collapsed during the 2km run on the 19/09/2019 at the Glencorse Assessment Centre. This candidate required CPR on site before being taken to hospital. His condition was severe, and he was treated for exertional rhabdomyolysis which was later to be found due to his Sickle Cell Trait status. As well as these three collapses mentioned, there was a fourth collapse of Kamil Iddrisu on the

	17/11/2019 at Lichfield Assessment Centre. Kamil subsequently died the following day as a result of exertional rhabdomyolysis associated with Sickle Cell Trait. For the first three candidate collapses, and the death of Kamil Iddrisu, the relevant incident reports were completed but the severity of the incidents were not identified. The CASPER reports were marked as a 'non-work-related ill health' incident leading to these reports being marked as 'closed' so they could not be added to, amended, or updated. The INCREP reports were marked as 'routine' incident, meaning no investigation was required. Due to an overall lack of training in completing these reports, those who needed to know about these incidents, did not know. Also, the correct procedure to notify the Defence Accident Investigation Branch immediately was not followed. There was also a delay in filing the reports initially which led to inadequate action being taken in a timely manner. Out of these reports it transpired that two of them were left unread and unactioned in an inbox. There was no evidence of a formal review of the reasons the three candidates collapsed, or of the death of Kamil Iddrisu, at the end of the 2km run. There was a missed opportunity to connect the reason for the collapses and Kamil's death to exertional rhabdomyolysis, given that there is a document known as the JSP950 Annex N, which clearly identifies that candidates with Sickle Cell Trait had a higher risk of developing acute exertional rhabdomyolysis which may lead to renal failure and death, in severe cases. A footnote is also recorded to state that it was more common in the African-Caribbean population. However, the Doctors at Lichfield Assessment Centre conducting the Assessments were not specifically trained on diseases from outside the United Kingdom. They were aware of the JSP950 document including Annex N. The opportunity was again missed when the GP's letter regarding the first candidates collapse confirmed the cause as being exertional rhabdomyolysis due to Sickle Cell Trait. This letter was received by Lead Clinician at Lichfield Assessment Centre on the 25/10/2019. There were discussions, none of which were recorded, between the senior leadership teams and Health and Safety during months July to October regarding the emerging trends but there was a lack of medical expertise and guidance on whose responsibility it was to take preventative action on similar incidents occurring again, carry out relevant risk assessments and to then take corrective measures. Following Kamil's death on the 18/11/2019 the Recruiting Group Head of Selection visited Lichfield Assessment Centre where he considered environmental factors and undertook a welfare check. He also updated Kamil's INCREP report with Additional information of the first three collapses who had been hospitalised. The Chief Medical Officer requested the physical case files for all collapsed candidates. As there is usually a delay in these arriving, he and his team looked into the electronic case files which were not comprehensive. He also advised the medical staff at Lichfield Assessment Centre to be more vigilant on taking candidate's family history. On the 19/11/2019 the Health & Safety Manager emailed the Health and Safety Director reporting Kamil's death but there was no evidence of any further action taken down this route. Two days after Kamil's death, a CASPER report was submitted and received at the Army incident Notification Cell on the 27/11/2019 at 9:25am. On the 25/11/2019 the Chief Medical Officer was informed that Kamil's death was caused by exertional rhabdomyolysis associated with Sickle Cell Trait. Even with the knowledge of this information, the Role Fitness Test 2km run was not halted until 28/11/2019 after Youngson's death. Following a forensic post mortem, the medical cause of death was determined to be: **1a MULTI ORGAN FAILURE** **1b EXERTIONAL RHABDOMYOLYSIS** **1c SICKLE CELL TRAIT** **II HYPERTROPHIC CARDIOMYOPATHY**
5	**CORONER'S CONCERNS** During the course of the inquest the evidence revealed matters giving rise to concern. In my opinion there is a risk that future deaths will occur unless action is taken. In the circumstances it is

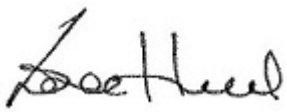
my statutory duty to report to you.

The **MATTERS OF CONCERN** are as follows. –

Sickle cell trait (SCT) screening process and identifying SCT in candidates:
1. The Inquest heard evidence that since these tragedies there had be 12 (13 as one incident includes 2 people) near misses where the process that had been put in place following these tragedies had not be followed. This resulted in 3 candidates at High Risk for SCT according to their family origins questionnaire undertaking the 2km run. 1 of these had self-identified to a Group Leader prior to the exercise but was directed to complete the RFT(E) run element in any case. This raises a concern about the screening process may not be safe and effective.
2. The inquest was told that the Air force and Navy are not screening any candidates for SCT. The Army are. Both services are recruiting from the Commonwealth. Medical evidence at the inquest confirmed screening was the only way to safely identify candidates at risk. This raises a concern that the recruitment process is not safe and effective.

Training and Education
1. The near miss incidents lead to a concern that staff involved in the selection process and RFT assessments are still not aware of the risk associated with SCT given that in one case the person was directed to undertake the run despite knowing he was at high risk of developing exertional rhabdomyolysis associated with SCT.
2. The lack of screening in the Navy and Air Force leads to a further concern about the level of understanding regarding the risks associated with SCT – the evidence at the inquest said this risk was unpredictable .
3. The inquest heard evidence that there is no standardised way to identify SCT candidates who are going through the selection process as the different services were considering using different colours wrist bands in different services. The raises a concern about the ability to identify those candidates who have SCT.
4. There should be a review of the wording used and rationale for including questions for candidates regarding ‘cola coloured urine’ in the PMSA. Dr Gupta, an expert haematologist at the inquest, informed the court that this is not always a sign of SCT as an individual can get cola urine from hepatitis. This raises a concern about the level of understanding of the significant of "cola coloured urine" and what it might indicate.

Reporting and investigation
1. The inquest heard how Capita have set up a clinical oversight board to review any incidents. First this board did not appear to have reviewed or audited any of the near misses referred to above and second it does not include a representative from the Army. This raises concerns about the lack of joined up thinking for an incident between capita and the army and the safety of the new process.
2. Reporting of incidents: the majority of the 12 near misses were not investigated at the time they occurred which indicates the present process is not safe and effective.
3. There is no system to audit whether incidents are being correctly processed and investigated.
4. The reporting system continues to use two parallel reporting forms for Capita (Casper) and the Army (Durals). These are on separate IT systems. This raises a concern that there is no "one version of the truth". The inquest heard evidence that Capita were unclear if they had resolved the issue in their Casper system associated with the drop down menu options and the fact that non work related incidents close investigations automatically.
5. It was unclear from the evidence whether the Recruiting Group has a clear identifiable person to take responsibility for the review health and safety incidents and to ensure adequate investigation is undertaken. Specifically it was still not clear that any oversight of the medical incidents fell within the remit of the Capita Head of Health and Safety.
6. It was unclear from the evidence whether the Recruiting Group act as one entity regarding health and safety issues with a clear lines of responsibility for global risk assessment (and promoting information gathering & investigation) of incidents of any nature. The Inquest heard evidence that ‘H&S at work’ is considered differently to any medical risk, which is supported by the lack of investigation of the near misses.

	Medical response: 1. Inquest heard how Lichfield had specialist medical staff on site in the medical training unit but there was no system for getting urgent medical attention on the base if needed. There was no mechanism to put a tannoy out for a medical emergency but the Inquest heard evidence that this could be done for a cake sale. 2. All the services should consider whether there should be a generic policy for the treatment of exertional collapse (of any cause) as per US Army where during training there is a clear medical plan with availability of essential medical treatment (eg oxygen and fluids) before hospitalisation.
6	**ACTION SHOULD BE TAKEN** In my opinion action should be taken to prevent future deaths and I believe you have the power to take such action.
7	**YOUR RESPONSE** You are under a duty to respond to this report within 56 days of the date of this report, namely by 19 December 2022. I, the coroner, may extend the period. Your response must contain details of action taken or proposed to be taken, setting out the timetable for action. Otherwise you must explain why no action is proposed.
8	**COPIES and PUBLICATION** I have sent a copy of my report to the Chief Coroner and to the following Interested Persons: The family of Kamil Iddrisu The family of Yougson Nkhoma Chief Constable for Staffordshire Police The Health and safety executive I am also under a duty to send the Chief Coroner a copy of your response. The Chief Coroner may publish either or both in a complete or redacted or summary form. He may send a copy of this report to any person who he believes may find it useful or of interest. You may make representations to me, the coroner, at the time of your response, about the release or the publication of your response by the Chief Coroner.
9	**24 October 2022** Signature:  **Louise Hunt** **Senior Coroner for Birmingham and Solihull**