SHERIFFDOM OF NORTH STRATHCLYDE AT GREENOCK

[2021] FAI 8

GRE-B44/20

DETERMINATION

BY

SHERIFF PRINCIPAL DUNCAN L MURRAY WS

UNDER THE INQUIRIES INTO FATAL ACCIDENTS AND SUDDEN DEATHS ETC (SCOTLAND) ACT 2016

into the death of

WILLIAM HARRISON

Greenock, 20 January 2021

DETERMINATION

The Sheriff Principal having considered all of the evidence, and the submissions of parties, determines in terms of section 26 of the Inquiries into Fatal Accidents and Sudden Deaths Etc (Scotland) Act 2016 ("the 2016 Act") that:–

F1. In terms of section 26(2)(a): William Harrison, born 7 January 1946,who latterly resided in Largs, died in Inverclyde Royal Hospital, Greenock at 17:30 on 15 March 2016.

F2. In terms of section 26(2)(b): no accident took place.

F3. In terms of section 26(2)(c): the cause of death was as set out in the post mortem report:

1(a) Sepsis and multiple organ failure due to

1(b) Bronchopneumonia

2 Ischaemic heart disease, diabetes mellitus, psoriatic arthritis (prescribed methotrexate)

F4. In terms of section 26(2)(d): no accident having taken place no finding is made under this subsection.

F5. In terms of section 26(2)(e): Mr Harrison had several co-morbidities (including high blood pressure, raised cholesterol, type 2 diabetes, osteoarthritis of his lower back, chronic heart disease, and psoriatic arthropathy) that made him vulnerable to superinfection. The delay in administration of antibiotics increased the likelihood of Mr Harrison dying from sepsis. However, it is not possible to say, on a balance of probabilities, whether the outcome would have been different had antibiotics been administered earlier.

F6. In terms of section 26(2)(f): it is not possible to say on a balance of probabilities that any precautions might realistically have resulted in the death being avoided.

F7. In terms of section 26(2)(g) the following matters are relevant to the circumstances of the death:

1. GP Referrals
2. Medical assessment of a "medically expected" patient (a term used to describe a patient who has been referred by a GP for admission to a medical ward.)
3. Nursing documentation within the Emergency Department ("ED")
4. Handover process
5. Kardex and Medical records

6. The Serious Clinical Incident Investigation Report dated 4 October 2016 ("SCIIR") Datix ID 402735

RECOMMENDATIONS

The Sheriff Principal having considered the information presented at the Inquiry, makes the following recommendations in terms of section 26(1)(b) of the 2016 Act to NHSGGC:

1. Steps should be taken to highlight to junior medical and nursing staff the need to escalate the assessment of patients who have a National Early Warning Score ("NEWS") in excess of 7 in terms of the NEWS checklist.
2. Consideration should be given to revising the guidance on significant adverse events to further emphasise the importance of establishing the facts of what happened, resolving any conflicts of evidence.
3. Steps should be taken to remind staff who will be responsible for medically expected patients that they should consider what is said in the GP referral.
4. Nursing and medical staff should be reminded to sign or initial notes to identify the author and to time an entry at the time the patient was seen.
5. Medical staff should be reminded of the manner in which drugs for immediate administration should be recorded on the once only prescription form and instructions issued to that effect.

A copy of this determination should be sent to Health Protection Scotland in order that they may consider whether it has wider application.

NOTE

INTRODUCTION

Representation at the Inquiry

For the Crown: Ms McCallum, Procurator Fiscal Depute

For NHS Greater Glasgow and Clyde ("NHSGGC"): Mr McLean, Advocate

[1] This is an inquiry into the death of William Harrison ("Mr Harrison") who died on 15 March 2016 in Inverclyde Royal Hospital ("IRH"). His death was reported to the Crown Office and Procurator Fiscal Service ("COPFS") on that day. The Lord Advocate exercised his discretion in terms of section 4 of the Act to require that an inquiry be held as he considered that the death occurred in circumstances giving rise to serious public concern and that it was in the public interest that an inquiry be held. Thanks are recorded to Ms McCallum, Mr McLean and Mr Henderson his instructing solicitor for their assistance in conducting this Inquiry.

The Proceedings, Witnesses and Evidence

[2] The Notice of an Inquiry was received on 3 February 2020. Preliminary hearings were held on 3 June, 16 July, 2 September and 7 October 2020. The inquiry heard evidence on 16, 17, 18, 19 and 20 November 2020 and 1 December 2020. A procedural hearing took place in 4 December and a hearing on submissions on 21 December 2020. As a result of the coronavirus pandemic the preliminary hearings were conducted by conference call and the Inquiry hearing by WebEx. The family of the deceased were not represented at the inquiry, but Mrs Harrison the widow of the deceased participated in

the preliminary hearings and viewed the Inquiry by WebEx. Parties provided a joint minute of agreement, a supplementary joint minute and written submissions.

[3] Evidence was led principally by the Procurator Fiscal Depute, in accordance with the duty under section 20(1)(a) of the 2016 Act. The witnesses were as follows: Carole Harrison, widow of Mr Harrison; Dr Colin Jamieson, General Practitioner; Claire Flood, Advanced Nurse Practitioner IRH; Christine Caddies, Emergency Nurse Practitioner IRH; Dr Jonathan Wright, who was in March 2016 a FY2 IRH; Dr Eleanor Murray, who was in March 2016 a ST4 IRH; Dr Mohamed Hamed, Medical Consultant IRH; Dr Robert Campbell, Consultant Anaesthetist, and Intensivist IRH; Ann Gray, Senior Charge Nurse IRH; Debbie Hardie, General Manager Emergency Care and Medical Services **NHSGGC;** Dr David Stoddart, Consultant in Emergency Medicine IRH; Dr David Raeside, Chief of Medicine South Clyde Sector, **NHSGGC**; Dr Michael Johnston, Consultant in Emergency Medicine, Ninewells Hospital, Dundee; and Kirsteen McFadyen, RGN IRH. Affidavits were produced for Ann Gray, Debbie Hardie, Dr David Raeside, Dr Colin Jamieson, Dr Robert Campbell and Lynette Cameron, Clinical Risk Manager, **NHSGGC**.

[4] The inquiry has been hindered by the length of time which has passed since Mr Harrison's death. It has been necessary as a result of the perceived shortcomings of the SCIIR. It is also a matter of regret that the Crown, having been alerted to this matter on the day of Mr Harrison's death, took some forty four months to determine that an inquiry should take place. The passage of time impacted on the ability of witnesses to recall events accurately.

The Legal Framework

[5] As explained above this was a discretionary inquiry held under section 4 of the 2016 Act. The Lord Advocate required that an inquiry be held as he considered that the death occurred in circumstances giving rise to serious public concern and it was in the public interest that an inquiry be held.

[6] Fatal accident inquiries and the procedure to be followed in the conduct of such inquiries are governed by the provisions of the 2016 Act and the Act of Sederunt (Fatal Accident Inquiry Rules) 2017. In terms of section 1(3) of the Act the purpose of an Inquiry is to establish the circumstances of the death and to consider what steps if any may be taken to prevent other deaths in similar circumstances. Section 26 requires the sheriff to make a determination which in terms of section 26(2) is to set out the following five factors relevant to the circumstances of the death, in so far as they have been established to his satisfaction. These are (i) when and where the death occurred; (ii) the cause or causes of such death; (iii) any precautions, which could reasonably have been taken and if they had been taken might realistically have avoided the death; (iv) any defects in any system of working which contributed to the death; (v) any other facts which are relevant to the circumstances of the death. The provisions in relation to an accident are not relevant to this Inquiry.

[7] In terms of section 26 subsections (1)(b) and (4), the Inquiry is to make such recommendations (if any) as the sheriff considers appropriate as to (a) the taking of reasonable precautions, (b) the making of improvements to any system of working, (c) the introduction of a system of working, and (d) the taking of any other steps.

[8] The procurator fiscal represents the public interest. An inquiry is an inquisitorial process and the manner in which evidence is presented is not restricted. The Court proceeds on the basis of evidence placed before it by the procurator fiscal and by any other party to the Inquiry. The determination must be based on the evidence presented at the Inquiry and is limited to the matters defined in section 26 of the 2016 Act. Section 26(6) of the 2016 Act provides that the determination shall not be admissible in evidence or be founded on in any judicial proceedings, of any nature. This prohibition is intended to encourage a full and open exploration of the circumstances of a death, while also reflecting the position that it is not the purpose of a Fatal Accident Inquiry to establish civil or criminal liability (section 1(4)).

[9] The scope of the Inquiry extends beyond mere fact finding. It looks to the future and seeks to prevent deaths occurring in similar circumstances. Where the circumstances have given cause for serious public concern an Inquiry may serve to restore public confidence and allay public anxiety.

What Happened

[10] Mr Harrison became a patient of what is now known as the Largs Medical Group on 28 December 2006. He suffered from a number of ailments including high blood pressure; raised cholesterol; type 2 diabetes; osteoarthritis of his lower back; chronic heart disease; and psoriatic arthropathy. He had been prescribed methotrexate since 1997 in connection with his psoriatic arthropathy. Methotrexate has the effect of suppressing the immune system.

[11] On Wednesday 9 March 2016 Mr Harrison had attended a conference in London. He felt as though he was developing a cold over the weekend and returned by train on Sunday 13 March 2016. He attended for a routine appointment with a practice nurse at his general practitioner's surgery on 14 March 2016. In the late afternoon his wife was concerned about his condition, she described him as being "zoned out and lethargic". She made an urgent appointment to see his general practitioner at the surgery. Dr Jamieson saw Mr Harrison at 17:11. His wife accompanied him to the consultation. While Mr and Mrs Harrison were still in his consulting room, Dr Jamieson telephoned the acute medical receiving ward J-North at IRH and explained that he suspected Mr Harrison was suffering from sepsis and was sending him to the hospital for investigation and treatment. Following examination Dr Jamieson noted in the records:

> "Feels awful, wife reports periods of confusion, has had a cough over the weekend. On examination tachycardic high temp, low SPO2, query septicaemia, further details and letter to Inverclyde Royal Hospital."

[12] It could not be ascertained who took the call from Dr Jamieson. It may have been advanced nurse practitioner ("ANP") Flood who was on duty that evening but with the passage of time she could not recall and the call may have been taken by one of her colleagues. She explained her standard practice was to complete a SBAR (situation background assessment recommendation) form which she described as being an excellent communication framework to transfer patient information from the GP to the hospital. No SBAR for Mr Harrison was traced.

[13] Mr and Mrs Harrison were directed to present at the IRH, Emergency Department ("ED") reception. Following the call to J-North, the medical receiving ward,

the ED was telephoned to advise them that Mr Harrison was a medically expected patient. In the course of the evidence it was indicated that this should have been recorded in the ED diary and after enquires were made the relevant page of the ED diary was produced. The handwritten entry by Senior Charge Nurse Gray states – "WM Harrison septic."

[14] The GP electronic management information system ("EMIS") records show that Mr Harrison left the consultation at 17:37. Dr Jamieson then provided some detail on his clinical observations to his secretary by email in order that she could complete a Scottish Care Information (SCI) gateway referral. The document was retrieved from the GP records and was produced to the Inquiry. The SCI gateway referral template allows medical history information to be uploaded from the GP electronic records. The clinical information section recorded – "I think he is Septicaemic probably secondary to Methotrexate". The GP EMIS record shows that the completed SCI gateway referral was faxed to IRH at 18:34. The fax was sent to the ED fax machine.

[15] Mrs Harrison drove her husband directly to IRH and he arrived at the ED reception at 18:05. This time reflects the point when the reception staff entered Mr Harrison's details to generate an ED card for him. He was noted as being a medically expected arrival.

[16] The ED was busy that day and shortly after 18:30 Nurse Caddies was asked by Nurse Gray to assist with triage of patients. Nurse Caddies took Mr and Mrs Harrison to the treatment room to undertake triage. Her observations timed at 18:40 are recorded in the hospital records. "Resp rate 36.; SpO_2 92 on air; Temp 38.5; pulse 130; BP 139/91."

This resulted in a NEWS of 9. She categorised Mr Harrison as triage category 2 which meant that he should be should be seen by a doctor within 10 minutes. This accords with the NEWS Form, which states as far as relevant:

> "Aggregate 7 or more continuous monitoring of vital signs. Inform medical team caring for the patient – this should be at least senior medical staff level. Emergency assessment by a clinical team with core competencies in the easement of critically ill patients. This team will have critical care competencies and a practitioner/s with advanced airway skills and resuscitational skills. Consider referral to high dependency or ITU."

[17] Nurse Caddies informed Nurse Gray, the nurse in charge of the ED of Mr Harrison's NEWS, and Nurse Gray paged the medical registrar ("med reg") on 51227 for them to come down from the medical receiving ward J-North to see Mr Harrison in the ED. The Inquiry heard no evidence as to the identity of the med reg who took that call. Mr Harrison was taken to step down room 1 in the ED, where he was placed on continuous monitoring by Nurse Caddies and put under the care of a "trolley nurse." A trolley nurse is responsible for monitoring and caring for patients awaiting transfer to a ward or treatment in the ED. Nurse Caddies provided the details of her observations of Mr Harrison to the trolley nurse (who she believed to be Nurse McFadyen). The trolley nurse then recorded the observations at 18:40 on the chart. She was then with the other trolley nurse on duty responsible for Mr Harrison's nursing care. These observations were such that the Sepsis 6 Protocol should have been triggered. This required that sepsis stickers be attached to the ED card, but this was not done. An example of these stickers which were in use in 2016 was produced for the Inquiry. Nurse Caddies triaged

one further patient before she finished her shift. She had no contact with Dr Wright who examined Mr Harrison shortly thereafter.

[18] Dr Wright was then a Foundation Year 2 doctor who had graduated in summer 2014 and was in his second year of training. He had commenced working at IRH in December 2015 in a medical geriatric post as part of his training rotation. This post also required that on an occasional basis he would assist the medical receiving team with the care of medical admissions to J-North. He was working a back shift on 14 March 2016 as part of the medical receiving team on J-North and was asked to go and see Mr Harrison in the ED. This was the first and only occasion in performing that duty he was asked to attend the ED to assess a patient. With the passage of time his recollection of events was limited. He did not recall who had instructed him to assess Mr Harrison or who he had spoken to in the ED. He accepted that he had spoken to someone to have been given the ED card and to be told which room Mr Harrison was in.

[19] Prior to examining and taking a history from Mr Harrison Dr Wright ordered a chest x-ray. This is timed on the request form, which was produced by NHSGGC after he gave his evidence, at 18:59. He also printed out the E-medicine reconciliation form. That form is timed as having been printed at 19:03. Immediately after printing the form Dr Wright examined Mr Harrison and took a history. He could not recall if he had accessed the clinical portal records for Mr Harrison. His entry in the acute medical admission proforma records time seen as 19:47. This reflects the time when Dr Wright completed the note rather than the time at which he saw Mr Harrison. Dr Raeside advised the inquiry that General Medical Council guidance provides that where a time

is recorded in medical records this should record the time at which the patient was seen and, where necessary, record that the note was completed retrospectively. It was not explained to the Inquiry why Dr Wright had not recorded the time in accordance with that guidance.

[20] Dr Wright did not access either the nursing documentation which mentions sepsis or take any steps to seek to clarify the information provided in the telephone call to J North which would have been likely to have included a reference to sepsis. Dr Wright could not recall seeing a SBAR form or the GP SCI gateway referral or obtaining clarification from Mr Harrison, why Dr Jamieson had referred him to IRH. Dr Wright must however been aware of some suggestion that Mr Harrison was suffering from sepsis as that was stated in the request for the chest x-ray.

[21] On the basis of his own observations and examination Dr Wright recorded the presenting complaint as "increasing shortness of breath, cough, fever and malaise" and that "Mr Harrison was a 70-year-old man who had since Friday been complaining of malaise, increasing shortness of breath, cough, coroyzal symptoms". He recorded that Mr Harrison was receiving methotrexate for psoriatic arthritis. He noted that Mr Harrison had felt that it was just a cold but that as he hadn't improved and had had a fever intermittently since the weekend, he called his GP. He incorrectly recorded this as a "house call" and that the GP called the "medics" with a query lower respiratory tract infection.

[22] He recorded Mr Harrison's past medical history as "psoriatic arthritis, high blood pressure, angina, T2DM". He noted his general appearance to be "flushed, with a

rising respiratory rate". He took bloods and established lactate 1.6, $HC0_3$ 23.3, cH 33.7. He conducted an ECG which showed sinus tachycardia, and noted that Mr Harrison's reflexes were grossly intact, no issues identified in gastro-intestinal system, all signs normal, no parectal. In addition to the chest x-ray, he requested blood cultures. He correctly identified that Mr Harrison was suffering from infection. Dr Wright's management plan as he recorded in the notes was for Mr Harrison to be admitted to J-North; for him to be prescribed paracetamol; his regular medication continued, save that methotrexate be stopped with immediate effect; IV fluids given, obtain blood culture results, and chest x-ray to determine if antibiotics should be administered, provide supplemental oxygen to seek to achieve an oxygen saturation greater than 94%. This was followed up by Mr Harrison being taken for a chest x-ray. The unreported x-ray result records that this was collected at 19:51 which was confirmed as being the time the chest x-ray was taken and would from that time have been available to be viewed by the medical team on the clinical portal. The chest x-ray was not formally reported by a radiologist until 12:10 on 15 March. Dr Wright confirmed that he wrote the entry on the once only prescription sheet for 1000mg of paracetamol for Mr Harrison. He prescribed the paracetamol to lower Mr Harrison's temperature and to provide some pain relief. Dr Wright's clinical assessment in the light of his examination, the history and the further information, which he took into account did not point to a bacteriological chest infection. His differential diagnosis was a lower respiratory tract infection or viral illness. He explained that the chest x-ray and blood cultures were ordered to exclude sepsis. The Sepsis 6 protocol instructs that bloods should be taken before antibiotics are

commenced. Dr Wright's plan was that the decision on antibiotics was to be taken by a more senior doctor following review of Mr Harrison and these results. That may have been explained by what Dr Raeside explained was some academic debate over a delay in antibiotic treatment of sepsis where there is a differential diagnosis. The Inquiry accepts the evidence that the pragmatic course was for the immediate administration of IV antibiotics.

[23] After having seen Mr Harrison, Dr Wright reported he attended the handover meeting. He could not recall what was said at the handover meeting but he believed he would have advised the med reg and the junior doctors on overnight to check the chest x-ray and the blood culture results to exclude infection. He did not recall drawing specifically to their attention how unwell Mr Harrison appeared, that a decision was required on the administration of antibiotics, discussing his differential diagnosis in any detail with them, or asking either the med reg who was about to finish their shift, or coming on overnight, to urgently examine Mr Harrison. Dr Wright's shift finished after the handover meeting and he went home.

[24] Following Mr Harrison's return from x-ray to step down room 1 Mrs Harrison recalled that a nurse told them she was waiting for the doctor to write up the antibiotics. Mr Harrison remained in step down room 1 within the ED until his transfer to ward J-North. Mrs Harrison told the Inquiry that she never saw the nurse or doctor again. Although Mr Harrison was subject to constant monitoring while in step down room 1, no observations are recorded in his notes after 19:45 until 22:00.

[25] The nursing notes from ward J-North record Mr Harrison's arrival on the ward at 22:15. He was accompanied to the ward by his wife. He was placed in a single room because of the suspicion he might be suffering from flu. Mrs Harrison left after her husband was settled on the ward. That was the last time he spoke to her. His NEWS improved between 18:40 and 22:15 possibly as a result of his being provided with oxygen and paracetamol.

[26] Dr Murray qualified as a doctor in 2008 and after undertaking her two foundation years commenced two years core medical training in Glasgow and Lanarkshire. She then became a specialist trainee in renal and general medicine, and commenced as an ST4 in a general medical post in ward J-North in August 2015. On 14/15 March 2016 her shift was from 21:00 to 09:00. Overnight she was the most senior physician in the hospital covering medical wards. She was supported by Dr Hamed the medical consultant on call from home. Dr Murray did not recall participating in the shift handover that evening. She explained it would be usual that outstanding x-rays and blood reports would be mentioned at the meeting. It was her practice to take personal notes of required actions at the handover meeting but these would routinely be destroyed at the end of a shift.

[27] Around midnight, Dr Murray accessed the clinical portal to review Mr Harrison's chest x-ray and compared this with an x-ray which had been taken in 2010. Dr Raeside stated and the Inquiry accepts this should have happened sooner. She identified that the chest x-ray picture showed unusual rounded opacity which was not typical for a sepsis-type infection. This was confirmed by the radiologist when they

formally reported on the chest x-ray. Her entry in the notes records she examined Mr Harrison, at 00:15 on what was now 15 March. By this stage Mr Harrison was in a different phase of his illness, and his presentation included features which might not immediately have been associated with sepsis. Mr Harrison's condition appeared to have improved since his initial assessment by Dr Wright and his NEWS had improved significantly. The CRP reading, which can give an indication of infection, showed a mild increase over normal; the reading for neutrophils, which is normally elevated in cases of bacterial infection, was within normal range; the lymphocyte count was low, which sometimes happens in viral infections. At the time Dr Murray thought the most likely diagnosis was viral pneumonia and musculo-skeletal pain, which she attributed to coughing, but she also considered lung cancer. Dr Raeside thought this presentation should have seen her discuss Mr Harrison with Dr Hamed the on-call consultant. She prescribed 5 mg Oramorph for pain relief. Dr Murray commenced Mr Harrison on Tamiflu. She put a square on the Kardex to indicate that this should be given immediately. Observations recorded at 00:30 resulted in a NEWS of 3.

[28] Mr Harrison was given 400mg ibuprofen at 01:30 and a further 5mg of Oramorph at 02:00. By about 02:50 his condition had deteriorated again, he was complaining of abdominal pain and was cold and clammy. His NEWS was noted as 6 rising. He was reviewed by Dr Murray again at 03:00 by which time his NEWS had risen to 7 and he had coughed up 30ml of fresh blood (haemoptysis). His heart rate was elevated and his oxygen saturation level had decreased to 90%. Dr Murray was becoming more concerned about him.

[29] Dr Murray considered several possible diagnoses. She believed that Mr Harrison's difficulties originated in his chest. The combination of increased heart rate, chest pain, and haemoptysis were signs of a blood clot in the lungs. That was a very different possibility from what had been considered until that point. Dr Hamed the on-call consultant physician was called on the telephone by Dr Murray around 03:00 to discuss Mr Harrison and suggested that a CT pulmonary angiogram ("CTPA") be performed, which Dr Murray arranged. The discussion is not recorded in the notes. Dr Murray also requested an opinion from the on-call surgical registrar for a query acute abdomen. The radiologist provided a provisional verbal report of the CTPA at 04:20. The radiologist's view was that no malignancy or pulmonary embolism was evident and there were signs which would not normally be present with infection. The radiologist thought it might be vasculitis, or an atypical infection or pneumocystis pneumonia ("PCP"), which is unusual but can be more common in patients who are immuno-compromised, such as Mr Harrison. By this time Mr Harrison's lactic acid had risen to 6.2. The significantly increased lactic acid level was a marker for poor profusion to the peripheral areas and poor blood circulation, an indicator of sepsis although the haemoglobin level was reassuring.

[30] The medical notes record that at 04:30 Dr Murray telephoned Dr Hamed to discuss Mr Harrison's deteriorating condition. Dr Hamed advised that: Mr Harrison should be moved to the High Dependency Unit ("HDU"); given the possibility of vasculitis or PCP Septrin and a steroid should be commenced; sputum should be sent for culture and sensitivity; blood should be sent for cross matching; there should be a

check for LDH and a vasculitic screen; the drugs to be prescribed on the Kardex twice daily with a dose administered as soon as prescribed. The anaesthetist should be asked to review the patient. Septrin would not have been an antibiotic of choice for the treatment of sepsis but was an appropriate selection given the clinical picture at that time. The medical records and oral evidence did not enable the Inquiry to make a finding when Septrin was administered. Neither can the precise time when Mr Harrison was transferred from ward J-North to the HDU be ascertained. Mr Harrison's wife was called by a nurse at approximately 06:00 and advised of the deterioration in her husband's condition and invited to come to IRH. She drove herself to IRH and remained there all day, she was joined in the course of the morning by her daughter.

[31] Mr Harrison was seen by the on-call anaesthetist, Dr McIntosh (now deceased) at 07:00. He completed a comprehensive entry in the notes which records that he telephoned Dr Campbell to discuss Mr Harrison's condition. By this point Mr Harrison was unmistakeably very seriously ill. Dr McIntosh recorded that although Mr Harrison didn't currently require a ventilator ongoing ITU treatment was necessary, and that intubation at some point that day was possible. Dr Murray saw Mr Harrison again at 08:00 before the end of her shift at 09:00. She recorded in his notes that his requirement for oxygen was increasing, he was more "shut down" and looked moribund. He was being treated for chest sepsis including PCP, with vasculitis being covered with steroids. She also recorded that Mr Harrison's family needed to be made aware of the severity of his illness. Her note concluded with a question about other reasons for severe lactic acidosis.

[32] Mr Harrison had a seizure at about 08:30 at which time he was moved to the Intensive Care Unit, where he was sedated, intubated, and placed on a ventilator. Meropenem, an antibiotic which is routinely used in the treatment of sepsis, was prescribed by Dr Campbell at 10:00 and administered at 10:10. Dr Campbell spoke to Mrs Harrison to confirm the history and explained that Mr Harrison was very ill although she did not at time realise that Dr Campbell was signalling that her husband might not survive. Although now under the care of Dr Campbell, Dr Hamed reviewed Mr Harrison whose condition had continued to deteriorate through the day. He endorsed the treatment plan which was in place.

[33] Dr Campbell then attended Mr Harrison, who was suffering from profound metabolic acidosis. It was decided that he should be turned over onto his stomach with a view to improving the ventilation in his lungs. At 17:25 on 15 March 2016 prior to this manoeuvre being attempted Mr Harrison went into cardiac arrest. CPR was commenced and adrenaline administered, but this achieved no return on the monitors and the medical staff were unable to resuscitate Mr Harrison. Life was pronounced extinct at 17:30 on 15 March 2016. Dr Campbell recorded in the medical notes: "To refer to the Procurator Fiscal." The following day he indicated to the Procurator Fiscal that he was prepared to issue a death certificate, but that was not required as a post mortem took place.

[34] Prior to submitting the report to the Procurator Fiscal, at 16.39 on 15 March 2020, Dr Campbell submitted a Datix Form reference 402735. It recorded his summary of the incident as:

> "Patient attended hospital with diagnosis of lower respiratory tract infection. They received this diagnosis from GP and on assessment in hospital. However they received no antibiotics. On speaking to patient's family nurse asked what antibiotic to give and was told not to give one. Patient has subsequently deteriorated and is suffering from life-threatening sepsis."

This triggered a Significant Clinical Incident Investigation by NHSGGC, commissioned by the then General Manger for Emergency Care and Medical Services, into Mr Harrison's death.

[35] The Policy on the Management of Significant Clinical Incidents which was in place at the time stated that it is the policy of the Health Board that a robust investigation will be conducted into all Significant Clinical Incidents. The group convened to undertake the investigation and report were: Debbie Hardie, then Clinical Service Manager for Emergency Care and Medical Services at IRH (she now holds the post of General Manager for Emergency Care and Medical Services for NHSGGC), Karen Thomson, Clinical Risk Coordinator, and Dr Louise Osborne, a consultant physician who at the time was Lead Consultant for IRH. Ms Hardie was the only one of the team who gave evidence. The draft SCIIR was prepared and circulated to the wider senior management team for comment. The final report, incorporating agreed changes, was issued on 4 October 2016. An addendum to the report was added in October 2019.

[36] Following the report of the death to the Procurator Fiscal an investigation commenced, a police report was sought and a post mortem ordered. This was carried out on 29 March 2016 by Dr Julia Bell, Consultant Pathologist. Based on the police report which was received on 16 March 2016 and the final post-mortem report received on 9 May 2016 a member of the Scottish Fatalities Investigation Unit ("SFIU") made the

decision that there was no focus for further investigation and the investigation of the death of Mr Harrison was closed on 23 May 2016. This was communicated to Mrs Harrison by letter of 25 May 2016. Following communications from Mrs Harrison the death investigation was re-opened and enquiries were made of NHSGGC about the SCIIR. When Mrs Harrison reported that she was not satisfied by the SCIIR the matter was reviewed by SFIU and an expert report from Dr Johnston was instructed. The report was discussed with Mrs Harrison and her daughter on 16 May 2018 and the purpose and process of an FAI explained. On 21 March 2019 the investigation was transferred to Ms McCallum, the procurator fiscal depute who conducted the Inquiry for the Crown. Following a further meeting with Mrs Harrison she clarified that that she wished a FAI to take place. Mrs Harrison is to be commended for her tenacity in seeking a FAI to seek answers to the question whether her husband's death could have been avoided and what went wrong in the care provided to her husband. She hoped these answers would enable lessons to be learned for the future. A report was submitted to Crown Counsel and on 6 December 2019 the decision was taken that a FAI should be held.

Issues for the Inquiry

[37] Following the preliminary hearings and in advance of the evidential hearings the parties identified the following issues:

1. When and where death occurred, and the cause of death.

2. Whether the delay in administering antibiotics to Mr Harrison caused or contributed to his death.
3. Whether there were any precautions which could reasonably have been taken, and had they been taken, might realistically have resulted in the death being avoided.
4. Whether and to what extent applicable standards and protocols were complied with in relation to Mr Harrison's admission and treatment at IRH.
5. Whether and to what extent any failures relative to applicable standards and protocols have been remedied by subsequent action taken by Greater Glasgow and Clyde Health Board.
6. Whether or not it would be appropriate to make any recommendations in relation to the matters set out in section 26(4) of the 2016 Act.

The Findings

[38] The formal findings in terms of section 26(2)(a) and (b) were as agreed in the joint minute as were the findings in terms of 26(2)(c). The circumstances of Mr Harrison's death were not associated with an accident so no findings are made in terms of section 26(2)(b), 26(2)(d) or 26(2)(e)(ii).

[39] In relation to section 26(2)(e) there were a number of shortcomings in the treatment of Mr Harrison which certainly did not assist his prospects about which more is said below. Mr Harrison was an active 70 year old who was still working, but he did

have various comorbidities and had been prescribed methotrexate which suppressed his immune system. The subsection requires that an assessment must be made as to whether had any reasonable precautions been taken, these might realistically have avoided the death of Mr Harrison. The evidence to the Inquiry from Dr Johnston, Dr Campbell and Dr Raeside was that the earlier administration of antibiotics would have maximised the prospect of the successful treatment of Mr Harrison. This would have had the greatest effect if IV antibiotics had been administered as the sepsis protocol advises within one hour, but might also have had an effect, albeit decreasing with the passage of time, had this been done during the course of the evening or when Mr Harrison was reviewed by Dr Murray at 00:15. However, all three doctors agreed that it was not possible to comment on whether the earlier administration of antibiotics would have prevented the death of Mr Harrison. Indeed Dr Raeside and, to a lesser extent, Dr Campbell were of the view that this would not have changed the tragic outcome in this case. It is therefore not open to the Inquiry to find that the earlier administration of antibiotics would on the balance of probability have avoided the death of Mr Harrison. Thus no finding is made in terms of section 26(2)(e).

[40] Section 26(2)(f) is concerned with any defects in any system of working which contributed to the death. The Explanatory notes to the Act state that the section is based on section 6(1)(d) of the 1976 Act. I accept the submission of NHSGGC that this section is broadly equivalent to the terms of the 1976 Act. The comments of the editors of *Macphail's Sheriff Court Practice*, 3rd edition, at paragraph 28.18 therefore continue to have application, as do the observations made in *Carmichael*, *Sudden Deaths and Fatal*

Accident Inquiries, 3rd edition, paragraph 5-76. A finding under section 26(2)(f) requires a positive finding that the defect in the system of working actually contributed to the death. Having determined that no findings may be made in terms of section 26(2)(e)(ii) no finding falls to be made under section 26(2)(f) as it is not open on the evidence to make a finding that any defects actually contributed to Mr Harrison's death.

[41] Section 26(2)(g) allows findings to be made which are relevant to the circumstances of the death. I agree with the submission made by NHSGGC that the various areas of concern which the Inquiry has identified should be addressed in terms of this subsection. This subsection encourages findings to be directed at such relevant circumstances even if there is no finding that they on the balance of probability contributed to the death. A number of matters relevant to the circumstances of the death fall to be illuminated, bearing in mind the purpose of an Inquiry is to establish the circumstances of the death and to consider whether any precautions could be taken which may prevent other deaths in similar circumstances. These are:

1. GP referrals
2. Procedures for medically expected patients
3. Assessment of Mr Harrison by a sufficiently experienced doctor
4. The Sepsis 6 protocol
5. Nursing documentation within the ED
6. Handover process
7. Kardex and Medical records
8. The SCIIR Datix ID 402735

9. Improvements to systems

The relevant circumstances

[42] Dr Jamieson, Mr Harrison's general practitioner, is to be commended on his treatment of Mr Harrison. He saw Mr Harrison urgently and recognised that Mr Harrison required urgent hospital assessment and treatment. He also correctly identified that Mr Harrison was suffering from sepsis. He contacted the acute medical receiving ward and provided details of Mr Harrison over the telephone and arranged for his admission to IRH. He instructed his secretary to complete a SCI gateway referral. The SCI gateway referral template allows medical history information to be uploaded from the GP electronic records. It includes a clinical information section which allows the GP to insert details of their observations, assessment and diagnosis. The inquiry was told that not all GP referrals are of such a comprehensive nature as that provided by Dr Jamieson. It was also explained that if, for example, a GP arranges an admission from a house call it may be that only a short handwritten note can be provided, which may be given to the patient to take with them to hospital. It was recognised, and the Inquiry accepts, that a comprehensive referral such as provided by Dr Jamieson could be an important tool to assist the hospital doctors in their assessment of a patient. In particular the GPs background knowledge of the patient was likely to give them additional insight and assist hospital clinicians in their assessment of a patient. In this case that information was not utilised. Dr Hamed's evidence was that he would have expected Dr Wright to have sought out the referral letter. The information supplied by

the GP provides additional material which alongside the history taken, examination and investigations are the tools for diagnosis and treatment.

[43] Dr Wright explained that if he had seen the SCI gateway referral from Dr Jamieson he would have modified his treatment plan and sought immediate advice from a more senior doctor. The Inquiry accepts had this happened it would, on the balance of probabilities, have resulted in the earlier administration of antibiotics for Mr Harrison. NHSGGC were unable to trace the faxed SCI gateway referral for Mr Harrison in IRH. Such a referral is now routinely submitted electronically and will be accessible on the clinical portal.

[44] ANP Flood explained that the SBAR form which she completed provided another means and framework by which patient information provided by the GP could be transferred to the hospital. It was recognised by NHSGGC during the course of the Inquiry that there was merit in a Standard Operating Procedure ("SOP") being introduced to capture this information and to promote its use in the initial assessment of a medically expected patient. This represents a valuable enhancement from the situation which pertained in March 2016, where in Mr Harrison's case on the evidence to the Inquiry no effort was made to access the SBAR information.

[45] The ED was busy on the evening of 14 March and the expectation that patients should be triaged within ten minutes of arrival at the ED reception was not met. The Inquiry accepts the evidence of Dr Johnston that no material adverse impact can be attributed to the short delay until 18:40 when Nurse Caddies triaged Mr Harrison. While there was also a short delay in Mr Harrison being seen by a doctor following

triage, I do not consider this to be material, as he was examined by Dr Wright shortly after 19:00.

[46] There was no evidence before the Inquiry to explain why Dr Wright was instructed to undertake the initial assessment of Mr Harrison. It would have been preferable for Mr Harrison to have been seen in Accident and Emergency by the med reg. Both Dr Johnston and Dr Raeside indicated that was not always possible depending on the demands of other patients. I accept their evidence that it was not unreasonable for the doctor, who is presumed to have been the med reg, to have instructed Dr Wright to attend the ED to examine Mr Harrison. Dr Wright however should have realised the need for escalation given Mr Harrison's NEWS and presentation. It may be inferred the med reg made some reference to sepsis when they instructed Dr Wright to assess Mr Harrison given sepsis was mentioned in the x-ray request. They should have been proactive in seeking feedback from Dr Wright of his examination, especially given his level of experience. Discussion with a more senior clinician would, on the evidence, have been likely to have resulted in the Sepsis 6 protocol being actioned and an IV antibiotic suitable for the treatment of sepsis being administered.

[47] Mr Harrison, following his initial examination by Dr Wright, should have been seen by a more senior doctor as stated in the NEWS protocol. While I accept that deviation from the protocol might have been acceptable if there had been a full report to a senior clinician immediately following Dr Wright having taken a history and examined Mr Harrison, as suggested by Dr Raeside, that was not what happened. I consider the failure of a more senior doctor to have examined Mr Harrison on receiving

a report from Dr Wright was a factor which contributed to subsequent events. Dr Wright, who initially examined Mr Harrison, and the nursing staff caring for him did not operate the Sepsis 6 protocol. Sepsis 6 stickers were not placed on Mr Harrison's case notes as they should have been. Those stickers mandated a response from Dr Wright which might have highlighted to him the Sepsis 6 protocol and the instruction that actions, including the administration of antibiotics, should be undertaken within 1 hour. Immediate discussion with a more senior clinician would on the evidence have been likely to have resulted in the protocol being actioned and an IV antibiotic suitable for the treatment of sepsis being administered in that timeframe. Thus a key system failure which occurred in this case was the lack of escalation following the initial medical assessment of Mr Harrison to a more senior doctor.

[48] The nursing staff in the ED may also have been prompted to follow up on the prescription of antibiotics had Sepsis 6 stickers been affixed to the ED Card. The protocol expects the administration of IV antibiotics within an hour. Mrs Harrison reported that a nurse had mentioned antibiotics being given to her husband and that they were awaiting the doctor writing the prescription. That was consistent with the evidence of Dr Wright that he was expecting a senior colleague to determine if antibiotics were to be prescribed. None of the evidence to the Inquiry explained why Mr Harrison was not commenced on IV antibiotics. Dr Wright should have escalated his findings on his examination of Mr Harrison to a more senior colleague in advance of the handover and should have highlighted that Mr Harrison was a patient who should have urgent review and a decision taken about the administration of antibiotics. With the

benefit of hindsight Dr Wright recognised that he should have asked a more senior doctor, either the med reg or the consultant, to examine Mr Harrison.

[49] If Dr Wright had, as he believed, passed on the need for urgent review and follow up of blood results and the x-ray for Mr Harrison at the handover meeting, it might reasonably have been expected that Dr Murray or indeed the day shift med reg or Dr Hamed would have reviewed his chest x-ray or examined Mr Harrison much earlier. That was Dr Raeside's expectation. It can be inferred that delay before Mr Harrison was reviewed by Dr Murray at 00:15 resulted from inadequate communication of the need for an urgent assessment of Mr Harrison by the med reg or Dr Hamed who was still in the hospital around 20:00.

[50] The ED consultants believed the SCIIR had not identified that responsibility for the care of Mr Harrison, as a medically expected patient, rested with the medical staff on ward J-North. Dr Raeside clarified that the medical staff on the acute receiving ward J-North are responsible for medically expected patients. Dr Stoddard also recognised that in an emergency situation medical staff in the ED would assist with a medically expected patient. Even if there was a lack of clarity on this matter in March 2016, I do not consider it impacted on the initial care of Mr Harrison. Dr Wright was dispatched from J-North to assess Mr Harrison on Nurse Gray making the call to the med reg. On his evidence he reported to the medical receiving teams at handover. The failure of a more senior member of the medical team to assess Mr Harrison resulted from the insufficiency of that communication.

[51] The Inquiry accepts Dr Johnston's criticisms of the ED nursing notes which were completed following triage. He noted that these were unsigned and did not record the person who had completed the triage. He also noted that the "screening tools" section had not been completed. In his view, the "yes" marker should have been ticked on the sepsis risk and the Sepsis 6 protocol initialised in the ED with sepsis stickers being affixed to the notes. As he pointed out, there is little point in having an *aide memoire* reminder in a form if it is not actioned. He further noted that the document contained no care plan for Mr Harrison. He was simply recorded as being a "medical expect query sepsis". NEWS is a national tool which is widely used across the country and provides an alert as to the seriousness of a patient's condition. Dr Johnston was in no doubt that the NEWS, taken together with the end of bed assessment of the patient should have seen the second and third bullet points in the NEWS chart actioned:

> "Inform medical team caring for the patient this should be at least senior medical staff level. Emergency assessment by a clinical team with core competencies in the assessment of critically ill patients. This team would have critically skilled competencies and are practitioners with advanced airways skills and resuscitation skills".

[52] That this did not take place was a significant failure to follow well established procedures. Had they been correctly implemented they would have improved Mr Harrison's prospects. Although the evidence was clear that the early administration of IV antibiotics increased their efficacy there was no evidence which allowed the Inquiry to find this would have prevented the death of Mr Harrison.

[53] Further between 19:45 and 22:00, while Mr Harrison remained in the step down room in the ED, there was a failure to record his observations. The Inquiry heard

evidence that the ED and ward J-North were busy, but there was no specific evidence of why Mr Harrison remained in the step down room for more than two hours. It may be inferred that this was because a bed in a single room was not initially available but this was not established in the SCIIR and the Inquiry heard no evidence to explain the reason.

[54] Counsel in his submissions for NHSGGC to the Inquiry invited the Inquiry to find that Mr Harrison's presentation after about midnight was complicated and his treatment at that time was appropriate. The Inquiry accepts that his presentation had become more complex but Dr Hamed, who was Dr Murray's supervising consultant, thought she should have sought out the SCI gateway referral. I did not have any evidence from an independent expert who was able to comment on the actions of Dr Murray between her coming on shift and phoning Dr Hamed. Dr Johnston, who is a consultant in emergency medicine, was not able to comment on the treatment received by Mr Harrison in the context of an acute medical receiving ward. In these circumstances the Inquiry accepts the evidence of Dr Raeside, as a consultant in respiratory medicine, that when Mr Harrison was reviewed at 00:15 his complex presentation meant that Dr Murray should have sought advice from Dr Hamed and sepsis could have been identified as a differential diagnosis and a suitable IV antibiotic to combat sepsis administered. He considered that the x-ray supported the administration of IV antibiotics even where other differential diagnoses were possible.

[55] Another difficulty with the notes is in relation to when Tamiflu and Septrin were administered. It is not ascertainable from the documentation when that took place. No

once only prescription sheet, which should have been competed for the immediate administration of either drug was completed. The evidence that the drawing of a square in the Kardex represented an instruction for immediate administration was not indicative of a clear, well understood process. While there is nothing to suggest that this uncertainty about the times these drugs were administered impacted on Mr Harrison it is reflective of suboptimal practice.

[56] The Inquiry records that there was no suggestion of any criticism of the treatment of Mr Harrison following his being transferred to the HDU, but regrettably by that time the opportunity for the early administration of antibiotics to counter sepsis had long since passed.

SCIIR

[57] Counsel for NHSGGC conceded there were deficiencies in the SCIIR. Ms Hardie accepted it was grossly inadequate. The policy on the Management of Significant Clinical Incidents under which the SCIIR was undertaken enumerates a number of basic principles, in particular:

> "The SCI investigation is a transparent process and there must be evidence of appropriate staff/patient/relative involvement."
>
> "All staff who contribute to the investigation will have the opportunity to review draft reports for factual accuracy, a final report will then be agreed by the investigation team and submitted to the investigation commissioner."
>
> "If the incident involves more than one service a joint review is required involving both parties. There should not be two separate investigations for the same event."

The purpose of the investigation is stated at the beginning of the report to be:

> "To identify the root causes and key learnings from an incident and use this information to significantly reduce the likelihood of future harm to patients."

The objectives of the investigation are stated as being:

> "To establish the background and sequence of events that led up to the incident. To identify underlying contributing factors in management and organisational systems. To identify lessons learned and develop a list of recommendations that would prevent similar incidents occurring in the future. To communicate any findings and recommendations across the organisation including those individuals directly affected or involved. To provide a means of sharing learning from the incident. To provide a report and record of the investigation process and outcome."

[58] The SCIIR failed to apply those basic principles or deliver on its objectives. Those investigating failed to identify the protagonists; and failed to take adequate statements. As a result the fact finding process was unsatisfactory, resulted in factual inaccuracies and failed to establish critical facts. Dr Murray was spoken to informally by Dr Osborne. Both Dr Murray and Dr Wright simply provided statements by email of their recollection of events. Despite the fact there were various questions which should have arisen from Dr Wright's emailed statement there was no follow-up interview with him. The report failed to identify that Mr Harrison was under the care of the medical staff on the acute receiving ward J-North. No statements were taken from Nurse Gray, Nurse Caddies or Nurse McFadyen. It is a mystery where information in relation to Mr Harrison's presentation on arrival at the ED came from. The med reg who instructed Dr Wright to attend was not identified or apparently spoken to, neither was the FY2 who was on overnight 14/15 March for ward J-North.

[59] The letter from NHSGGC of 7 March 2018 to SFIU in response to the observations made by Dr Johnston in the independent expert report he produced dated

5 October 2017 was written in a manner to accentuate the positive. It failed to address the critical issues which should have properly been the focus for NHSGGC. It, like the SCIIR, suggested a lack of emphasis on identifying what happened, remedying errors and improving systems. Rather it sought to present the picture in the best possible light. There were indeed aspects of the care which were positive but the key purpose of the SCIIR was to identify the shortcomings in the system and those did not receive the attention that they deserved. This is a position which was exacerbated by the poor and inadequate factual finding and identification of what actually occurred to inform that consideration. It is remarkable that the letter of 7 March 2018 stated that: "The charge nurse is still of the opinion Mr Harrison did not look unwell." The identity of that nurse was not revealed and the Inquiry was told that those conducting the SCIIR did not obtain a formal statement from any member of the nursing staff. It was contradicted by three sources of evidence to the Inquiry. It is contrary to the NEWS calculated by Nurse Caddies for Mr Harrison at 18:40 and her evidence of his condition. It is in stark contrast to his General Practitioner's assessment an hour before that he looked "awful" and Mrs Harrison's evidence of her husband's condition and that he required a wheelchair when she brought him into the ED.

[60] In the letter NHSGGC advised: "where an individual's performance is poor this is addressed through the appropriate Human Resources Policy in conjunction with the individual's educational supervisor." Dr Wright's evidence was that no discussion had taken place with him regarding his actions that night beyond his being asked to provide a statement to the SCI report. No feedback was provided to Dr Wright and this

appeared to have only been given informally and to a limited extent to Dr Murray. There were clearly learning points which should have been highlighted to them and although they may have left IRH and moved onto other posts, steps should have been taken to bring the report's findings to their attention. The letter may be read to give the false impression that had occurred.

[61] The minute of the Clyde Emergency Medical Clinical Government meeting on 7 March 2018 records concerns about the terms of the SCIIR. In October 2018 following Dr Raeside taking over as the Chief of Medicine for the South Clyde sector and Dr MacMillan taking over as Clinical Director of Emergency Medicine, the matter was revisited. Dr Claire Harrow, Clinical Director of Medicine, also expressed concerns about the report. As a result, a review of the SCIIR was carried out by Drs Raeside, Harrow and MacMillan, assisted by Joyce Brown, the Clinical Governance Manager. They produced an addendum to the report in October 2019 which was submitted to the Procurator Fiscal and Mr Harrison's family. The addendum to the report identified factual errors in the initial report, namely that Mr Harrison had been placed on continuous monitoring following triage, and his case was not escalated as it should have been in terms of the protocol in light of his NEWS being 9. It was also identified that the timing of Dr Wright's report of 19:47 was probably when Dr Wright wrote up his notes, as the other documentation suggested that he had seen the patient shortly after 19:00, which was an adequate timeframe after the initial triage assessment. The addendum also noted that contrary to the initial report, the time when antibiotics were administered could not be established. It was accepted Dr Hamed had recommended

administration of Septrin at 04:30 on the 15 March 2020, but the Kardex recorded the administration of Septrin between 07:00 and 9:00. The addendum also identified additional missed opportunities to administer antibiotics after the initial medical review and shortly after midnight on 15 March. Thus, some, but by no means all, of the inadequacies and the errors in the report were identified when the addendum was produced in October 2019.

Improvements to systems

[62] NHSGGC accepted that there were various system and specific deficiencies in the care provided to Mr Harrison. Evidence was led about improvements which had been introduced. Given the failures the Inquiry has identified which arose in this case, it is important to reassure the public that the Inquiry recognises the significant actions which have already been taken to improve the systems and care provided at IRH to avoid a recurrence of the system failures which have been identified in this case.

Flow co-ordinator

[63] Although the flow co-ordinator role was in place in March 2016 it had only been recently introduced and the role has since been developed. A flow co-ordinator is now working in the ED from 09:00 to 21:00 every day. The evidence to the Inquiry suggested that had the flow co-ordinator working under the current job description been in post in March 2016, it is unlikely that Mr Harrison would have been permitted to languish in step down room 1 between 20:00 and his transfer to ward J-North. The flow co-

ordinator's role is specifically designed to facilitate the transfer of patients to the receiving ward. It is also likely that the flow co-ordinator would have encouraged proper monitoring of Mr Harrison during this period.

Medically expected patients

[64] It has been reinforced that responsibility for a medically expected patient rests with the inpatient medical receiving team, but there is an expectation that in an emergency situation ED staff will provide assistance in the treatment of the patient.

Escalation policy

[65] NHSGGC has reinforced the triage escalation policy and laminated posters to remind staff of the policy are displayed in the ED. This policy has introduced escalation stickers which have been refined since their introduction. The current policy requires the triage nurse should apply the applicable sticker relevant to the patient's NEWS. The sticker contains fields for various pieces of information including the date, the time, patient's NEWS, and the name of the clinician who has been contacted. The doctor contacted is then required to complete the response sticker and the nurse is prompted to ensure that the doctor completes the response. In cases of a patient with a NEWS of 7 or more, the sticker prompts mandatory consultant review if there is no improvement after an hour and no decision has been taken to limit escalation. In that case the nurse is prompted to ensure that there is agreement on triggers for further review. These

stickers and the escalation policy which they promote are valuable system improvements which seek to improve patient care.

Induction of medical staff

[66] Dr Raeside reported on improvements to the induction programme which contrasted sharply to Dr Wright's evidence that he received no induction following his arrival at IRH. There was a clear requirement for improved induction for junior staff in relation to their various rotations through IRH, and in particular for those in geriatric wards who have to undertake responsibilities in J-North, the acute medical receiving ward. The lack of induction for Dr Wright may well have impacted on his not seeking out the GP referral letter and his omission to seek advice from a more senior doctor following his examination of Mr Harrison. The inquiry was advised that the new induction programme includes a presentation on "the deteriorating patient" which advises on the use of escalation stickers. Dr Raeside also confirmed that the structured training of medical staff emphasised the importance of expeditious administration of antibiotics where sepsis is suspected, especially in an immunocompromised patient.

[67] It is self-evidently important that an effective induction process should be in place for new staff particularly where doctors in training rotate regularly. It is of note that three of the common reasons for a mistake highlighted in the severe adverse event toolkit human errors document, chime with the evidence to this Inquiry, namely: "lack of information or instruction; often new tasks or rarely done; often inexperienced people."

[68] The evidence to the Inquiry about the absence of a documented process to file and access SBAR forms prompted NHSGGC to introduce a SOP. This new SOP instructs, where an ANP is contacted by a general practitioner, to make arrangements for the admission of a medically expected patient that the SBAR form should be scanned into the patient's records in the care portal. Doctors treating the patient may thus readily access the SBAR.

Embedding good practice

[69] Dr Raeside told the inquiry of the importance that good practice was embedded within the culture of IRH and explained the steps that have been introduced to reinforce policies and procedures. New terms of reference have been prepared for a hospital improvement group which is now termed the Improvement and HMSR Steering Group, where "HMSR" refers to Hospital Standardised Mortality Ratio, for which the group is also responsible. The function of the group is to improve the quality and safety of the clinical care at the hospital. It promotes the sharing of cross-sector learning. The group meets regularly. The members of the group are senior clinicians who are expected to attend meetings or send a fully-briefed representative, and the group reports to the Clyde Clinical Governance Committee. Dr Raeside in his evidence demonstrated his personal commitment to driving sustainable improvements. As Dr Johnston observed, procedures are only valuable if there is a culture which supports their being adopted. The Inquiry was encouraged by Dr Raeside's focus on promoting a culture in which good practice is embedded.

Policy for the Management of Significant Adverse Events

[70] In 2019 the Cabinet Secretary for Health and Sport directed that there should be standardisation of terminology and process for the investigation of such incidents. In response NHSGGC replaced their Significant Clinical Incident Policy with a Policy for the Management of Severe Adverse Events for NHSGGC published in August 2020. In the introduction to the new policy it is stated: "We have a responsibility to ensure these incidents are appropriately investigated to minimise the risk of recurrence by applying lessons learned."

[71] The new policy on the Management of Serious Adverse Events issued by NHSGGC is clearly an improvement of the previous arrangements under which the SCIIR was produced. An enhanced and expanded toolkit to support investigations is available to supplement the new policy. This includes a process guide, comprehensive quality assurance checklist, briefing note for severity 4 and 5 incidents, lead reviewer checklist, timeline template, and human errors table. These are valuable resources but are dependent on those investigating an event utilising them and being rigorous and balanced in their investigation.

[72] The new policy addresses a number of the obvious shortcomings which this Inquiry has identified in the production of the SCIIR. The starting point for any such report is to establish what happened. That is best done by approaching the relevant people as soon as possible when memories are fresh. The new guidance could give more emphasis to the importance of establishing what happened. It is important that the instruction that the draft report should be shared with those participating, and that

they are required to sign statements is complied with to improve the accuracy of the report. It is also suggested that more attention could be focused on the need to establish an accurate factual matrix and to seek to resolve conflicts of evidence in order to do so. It is recognised that the purpose of such a report is to establish process improvements and undertake root cause analysis. Its function is not to attribute blame. That analysis and recommendations for improvements should be founded on clear factual findings, reached on the balance of probabilities. It is to be hoped that the new arrangements would not involve such informal discussions as took place in the preparation of the SCIIR.

[73] The policy requires that the final report must be shared with all staff involved in the incident. This represents an important requirement and is to be contrasted with the lack of interaction with Dr Wright and minimal follow up with Dr Murray following the SCIIR.

[74] The Inquiry endorses the improvements made by NHSGGC, narrated above, which have addressed areas of concern and sought to introduce improved practices, pre-empting the need for the Inquiry to make recommendations about these matters.

Recommendations

[75] The inquiry makes five recommendations to NHSGGC. The first is made notwithstanding the actions which have been taken to address this matter to date because it was such a key failing in the care of Mr Harrison.

1. Steps should be taken to highlight to junior medical and nursing staff the need to escalate the assessment of patients who have a NEWS in excess of 7 in terms of the NEWS checklist.
2. Consideration should be given to revising the guidance on significant adverse events to further emphasise the importance of establishing the facts of what happened, resolving any conflicts of evidence.
3. Steps should be taken to remind staff who will be responsible for medically expected patients that they should consider what is said in the GP referral.
4. Nursing and medical staff should be reminded of the need to sign or initial notes to identify the author and to record the time the patient was seen.
5. Medical staff should be reminded of the manner in which drugs for immediate administration should be recorded on the once only prescription form and instructions issued to that effect.

[76] The Inquiry also directs that a copy of this determination be sent to Healthcare Improvement Scotland so they may consider whether its wider circulation to other health boards may assist in practice improvements.

CONCLUSION

[77] It does not make the pain of loss for the family of Mr Harrison any less, nor should it provide any succour to NHSGGC that no findings are made under subsection 26(2)(e) or (f). The failure to escalate the review of Mr Harrison to a more senior doctor and to follow protocols prejudiced the care provided to Mr Harrison. He did not receive

the standard of care which should have been expected, even if the early administration of IV antibiotics may not have resulted in a different outcome.

[78] This Inquiry has identified other shortcomings in the care of Mr Harrison. The SCI gateway referral from the GP was not reviewed by the acute medical receiving team. The Sepsis 6 protocol was not implemented and Sepsis 6 stickers were not affixed to the ED card for Mr Harrison. Handover arrangements failed to result in early review of Mr Harrison and a decision on the prescription of antibiotics. Note keeping was not as accurate as it should have been and there was a failure to record observations between 19:45 and 22:00. There was a lack of clear recording of the prescription for immediate administration of Tamiflu and Septrin.

[79] It is recognised that NHSGGC have taken steps to remedy some of the issues which have been identified. Evidence was given of improvements to induction of medical staff. Training has been given on the escalation of assessment of a sick or deteriorating patient and recognition/escalation stickers introduced to serve as an *aide memoire* along with posters to remind staff of these protocols. Dr Raeside demonstrated in his evidence his personal commitment to embedding a positive culture of good practice. Such an approach is likely to deliver more sustainable and satisfactory improvements in practice.

[80] The new policy is to examine these matters as severe adverse events. This policy, if followed, should avoid the shortcomings of the SCIIR which was unsatisfactory for the reasons explained. The investigation of a severe adverse event should be the primary means whereby such deaths are investigated. Operated properly and expeditiously by

those with the specialist knowledge to ascertain and analyse what occurred, it should result in a thorough independent inquiry. It offers a means by which lessons may be learned, improvements introduced and an explanation provided to the family of the deceased of what happened.

[81] Finally I reiterate my sincere condolences to Mrs Harrison and the family and friends of Mr Harrison.