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# Clinical

## update

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## Grey matters: Improving mental health care

Patients presenting with a mental health crisis, deliberate overdose or deliberate self-harm, including suicidal thoughts account for close to 20,000 calls of the Service's case load each year. As ambulance clinicians we are well trained to assess for physical illness or injury and provide effective treatment and referral where required. Mental health patients on the other hand often provide us with a particular challenge for a variety of reasons



including the complexity of their conditions, the relatively small amount of training and education staff have traditionally received on mental health, the fact that treatment is often complex and long term so we are often unable to provide a complete fix for their problem, the difficulty in accessing appropriate care pathways for this client group, and the often lack of parity between which mental and physical health is regarded.

Fortunately, mental health seems to be moving up the agenda both nationally and within the Service. A national mental health crisis care concordat has been agreed between ambulance services, Department of Health (DH), police and mental health trusts about how mental health patients should be prioritised and treated. Mental Health Crisis Care Concordat: *Improving outcomes for people experiencing mental health crisis* was launched by the Minister of State for Care and Support, Norman Lamb on the 1 April 2014. It has new recommendations for how ambulance services treat patients in a mental health crisis. The concordat, or pact,

signed by 22 national organisations including the DH, the Association of Ambulance Chief Executives and the charity MIND, details how the signatories will work together to deliver a high quality response when people with a mental illness urgently need help. The concordat is available to view in full on the Department of Health's [website](#) and [the Pulse](#).

As part of implementing the recommendations of the Mental Health Crisis Care Concordat, the way in which the Service responds to patients detained by the police under section 136 of the Mental Health Act, has changed. These changes are reflected in the national section 136 protocol introduced in April 2014.

- For restrained patients where there is a risk of positional asphyxia or where clinical information is of concern (e.g reduced level of consciousness, chest pain, serious haemorrhage) the Service will aim to respond within eight minutes (Resp 2). For other patients, a 30 minute response (Resp 4) will be provided. In the event of calls being held and no resource having been sent in 30 minutes, this will be upgraded to a Resp 2.
- Conveyance from the scene to a place of safety will be in accordance with the Conveyance Policy (OP014).
- Staff should carry out a physical health assessment to exclude mimics such as diabetic hypoglycaemia or head injury. Staff should then liaise with the police on scene to discuss the most appropriate destination which should be a designated 'place of safety'.
- The patient should be transported in an ambulance whenever possible to ensure optimum patient safety and to avoid the stigma associated with travelling in a police van.

The full documents including control room management of patients detained under section 136 MHA are available at the pulse>clinical>mental health.

**Kuda Dimbi, Mental Health Clinical Lead.**

## Mental health and safeguarding referrals

The CSR 2 (2014) introduces staff to the LA383-Mental Health Awareness Tool. Although not rolled out yet, it appears that the wording around safeguarding on the new Mental Health Awareness Tool currently being taught in preparation for roll out may have given rise to a mistaken belief that *all* mental health patients we attend need a safeguarding referral.

This is **NOT** the case. A mental health diagnosis is one of a number of factors including old age, physical disability, social isolation etc. which mean that we consider that a person may not be able to take normal measures to protect themselves from abuse, neglect or harm, and therefore if they are experiencing, or are likely to experience abuse, neglect or harm then a safeguarding referral should be considered.

Simply having a mental health diagnosis or presenting with a mental health problem, with no suggestion of **abuse, neglect or harm** whether due to the actions of another or accidental, is not sufficient to trigger a safeguarding or welfare referral. Similarly we would not make a referral just because of a person's old age or physical disability. However, if a patient's mental illness is impacting on others who could be considered vulnerable then a referral should be considered. For example some parents/carers with severe mental illness can pose a risk to their children. Where it is thought that the child has experienced or is likely to experience significant harm or neglect as a result of delusional thoughts or suicidal plans that involve children. Risk factors for abuse include, mental illness, older age, being physically dependent on others, previous history of abuse and social isolation. If the concern is purely for a person's mental health

condition/state then the appropriate care pathways or GP referral should be used to facilitate an assessment. If you are in doubt, then make the referral, or if it's appropriate for telephone referral, call to discuss with EBS.

### Main types of abuse:

- **Physical abuse** may involve physical violence, misuse of medication, inappropriate restraint or sanctions.
- **Sexual abuse**
- **Psychological abuse**, including emotional abuse, threats of harm or abandonment, deprivation of contact, humiliation, blaming, controlling, intimidation, harassment or verbal abuse.
- **Financial or material abuse**, including theft, fraud, exploitation, pressure in connection with wills property, inheritance, or financial transactions, or misuse or misappropriation of property, possessions, or benefits.
- **Neglect and acts of omission**, including ignoring medical or physical care needs, failure to provide access to appropriate health, social care or educational services or withholding medication, adequate nutrition or heating.
- **Discriminatory abuse**, including racist and sexist abuse or abuse based on a person's disability.

### Case example 1:

A referral was made for a patient who had been picked up in a public place clearly experiencing a psychotic episode, behaving unpredictably and expressing delusional and bizarre ideas. He was conveyed, under Section 136, to a place of safety (Ladywell Mental Health Unit). In this instance there is no requirement to make a safeguarding referral UNLESS there is further or separate risk of abuse or neglect or harm as the MH needs of the patient are being met.

### Case example 2:

We attended the same patient, this time at his home. On this occasion he was also clearly suffering a mental health crisis and was conveyed. It also became apparent during the incident that the patient had been allowing a neighbour access to his money to purchase groceries for him. In fact there was no food and it seemed that the patient may be suffering financial abuse. In this case, because of his mental health diagnosis, we do not expect him to be able to take normal measures to protect himself and for this reason a safeguarding referral was absolutely appropriate.

Alan Hay, EBS Manager, Kuda Dimbi, Mental Health Clinical Advisor and Alan Taylor, Head of Safeguarding.

## IV Paracetamol – not just an analgesic

A reflective case study using Willis' reflective model for pre-hospital professionals:

Working on the car recently I was sent to an elderly man who had suffered a seizure. The gentleman lived in a nursing home and there were two very helpful members of staff in attendance on my arrival. Walking into the room it was immediately obvious the patient was pyrexia; one could almost feel the heat coming from him, indeed, his skin was very hot to touch. The following history and observations were ascertained:

The carers explained that the patient had been his usual self until 6pm that evening when he had suddenly deteriorated, becoming very hot and less responsive. It was now 8pm and he was showing no signs of improvement. There was a recent history of a urinary tract infection (UTI) for which he had received a course of amoxicillin. The staff had tried to administer two paracetamol tablets before calling 999 but the patient spat them out.

The gentleman was tachypnoeic and tachycardic. His oxygen saturations were unreadable and a manual blood pressure yielded a systolic reading of 100mmHg, the diastolic being unheard. His Glasgow Coma Score (GCS) was calculated at 4+4+6=14, losing a point for confusion.



A tympanic temperature of 39.7° C was also recorded. His past medical history included dementia, atrial fibrillation, hypertension, multiple UTIs with sepsis and a stroke, the latter of which had left the patient bed bound.

Oxygen saturations improved to 94% on oxygen therapy. Pyrexia has traditionally been treated in the pre-hospital environment with two 500mg tablets but this option had already been tried unsuccessfully prior to our arrival and I imagined administration of liquid paracetamol (Calpol®) would doubtless get the same result. So what about IV paracetamol? The patient met the indications – relief of high temperature – and was not excluded by the contraindications – known paracetamol allergy, paracetamol given within the last four hours nor had the cumulative dose been given over 24 hours.

I introduced a small intravenous cannula (20g) in the patient's forearm and flushed with saline 0.9%. The paracetamol container was attached to a giving set and run through – care was taken to avoid bubbles as there is insufficient fluid volume to be running bubbles out of the system. The paracetamol solution was administered slowly over ten minutes. There was a fair amount of subjectivity in calculating delivery rate but to avoid any unwanted hypotensive side effects I settled on a slow drip rate. The patient was then taken to the nearest Emergency Department by the paramedic crew.

So, did it work? I bumped into the crew the following day and they reported a remarkable improvement in the patient's condition en route to hospital. The patient's GCS improved, his temperature came down and he looked generally better in himself – clearly more comfortable for the journey.

The following shift, I attended to another elderly male in a care home with similar symptoms. This gentleman was hot to touch, had an on-going UTI and no attempt had been made to administer paracetamol in the last 24 hours. He was responsive to voice and not making eye contact. He appeared to be in a great deal of discomfort and had the added complication of a blocked urinary catheter that had bled on removal by the nursing staff. He grimaced on movement and kept himself curled up, resisting attempts to assess him. He had a history of Alzheimer's disease with dementia.

Based on my previous experience I didn't hesitate to administer IV paracetamol again (of course, if a patient is able to swallow then oral paracetamol should be the first choice). On this occasion improvement was not as rapid but 30 minutes later, whilst completing the clinical handover in the emergency department, the patient was making eye contact and smiling. His temperature had come down and he was no longer grimacing on movement.

Much of the above is anecdotal – there is a paucity of evidence in the literature on the administration of IV paracetamol being given for pyrexia in the pre-hospital arena. So, why IV paracetamol for this particular patient group? Well, they were hot, non-compliant with oral

medication and sick enough to warrant an invasive procedure such as IV cannulation. Any initial hesitation on my part to administer the drug was based in part on my never having administered it before together with an assumption that IV paracetamol would be part of an analgesic regime rather than an anti-pyrexia. I consulted with the Emergency Department Sister on her use of IV paracetamol in patients such as these and she swears by it. She explained that it is also used routinely in her particular department as a first line treatment for sepsis. The aforementioned paucity of evidence makes it difficult to know whether earlier administration has clear health benefits but anecdotally the reduction of temperature and pain in these very sick patients led to improved clinical signs coupled with more comfortable transfers to hospital. Scope for more research perhaps?

#### References:

Joint Royal Colleges Service Liaison Committee (2013) 'UK Ambulance Services Clinical Practice Guidelines 2013'  
Class Professional Publishing

Willis (2010) 'Becoming a reflective practitioner: frameworks for the pre hospital professional.' JPP. Vol. 2 No (5), 212-216

Author: Claire Tinker, Training Officer, Bromley Complex.

## Law and ethics update: Mental health & capacity

Managing non-compliant, incapacitated patients suffering from mental health disorders can be extremely challenging. When dealing with forced removal, it is essential to ensure that the correct legislation is employed to ensure that your actions have a sound legal basis.

### Sessay v (1) South London and Maudsley NHS FT and (2) The Commissioner of Police for the Metropolis

Police officers entered the private accommodation of Ms Sawida Sessay following a concern raised by Ms Sessay's neighbour. The officers formed the view that Ms Sessay was mentally disordered and should be taken to hospital for the purposes of a mental health assessment.

The police considered that she fell within the scope of s.135 of the Mental Health Act, but were unable to exercise that power as they did not have the required warrant and were not accompanied by an approved mental health professional (AMHP) or registered medical practitioner. Instead, they relied on s.5 of the Mental Capacity Act to justify removing Ms Sessay to hospital.

Ms Sessay was taken to Peckham Police Station where her child was taken into police protection, she was then taken on to the 's.136 Suite' at the Maudsley Hospital (SLaM) where she remained for 13 hours prior to being placed under s.2 of the Mental Health Act.

Ms Sessay brought a case against the hospital and the police in that their actions had been unlawful. The police

settled 'out of court', and the court found that SLaM had detained Ms Sessay unlawfully and were in breach of her rights under Article 5 of the European Convention on Human Rights.

The judges made clear the view that the law makes adequate provision in the form of the Mental Health Act for the admission of non-compliant, incapacitated persons suffering a mental health disorder.

### How should this have been managed?

The exclusive powers available to the police to remove a person who appears to be mentally disordered to a place of safety are s.135 and s.136 of the Mental Health Act. As Ms Sessay was in the private place, this precludes s.136. In order to rely on s.135 the police would require a warrant to be issued by a magistrate on the application of an AMHP and be accompanied by an AMHP and a registered medical practitioner at the time of executing the warrant.

### Mental Health Act v Mental Capacity Act

In addition to the s.135 and s.136 police powers, the Mental Health Act provides for urgent and emergency admissions in sections 2 and 4.

Section 2 requires an application to be made by an AMHP on the recommendation of two registered medical practitioners (one to be a 'section 12' approved doctor and the second to have professional knowledge of the patient). Section 4 provides for patients whose condition precludes the time required to make a s.2 application and allows an AMHP (or occasionally a close relative) to make an application on the recommendation of a single registered medical practitioner (e.g. the GP).

Only the Mental Health Act (MHA) can be used to compulsorily detain and remove patients suffering with a mental health disorder; the Mental Capacity Act specifically does not apply to patients detained under the MHA.



The Mental Capacity Act (MCA) can be used, under certain conditions, to restrain and convey patients to an appropriate place of care, as well as providing some types of treatment. The Mental Capacity Act should not normally be used to provide treatment for a mental health disorder; remember that s.5 of the MCA only provides for restraint where it is necessary to protect a person who lacks capacity from harm and where it is reasonable and proportionate to restrain them.

## Key Points:

- Where a person (with or without capacity) refuses to be conveyed for the purposes of assessment and/ or treatment of a mental health disorder, only the Mental Health Act can be used.
- If a person **who lacks capacity** in the context of mental health:
  - has a physical injury or illness from self-harm or otherwise;
  - is believed to have taken a harmful substance;
  - is believed to be intoxicated with alcohol or drugs;

**and** this is reasonably believed to have contributed to the loss of capacity;

- **or** if there is uncertainty if the lack of capacity is a result of a physical or mental health disorder;

Then the Mental Capacity Act s.5/6 *may* be used to restrain and convey to hospital subject to this being proportionate and in the patient's best interest.

- An LA5 must be completed for patients who are determined to lack capacity, unless time critical features preclude this.
- An LA5 should be completed to support the assessment of a person who declines treatment and conveyance where there is a risk of serious illness or injury, or death.

Author: Jaqui Lindridge, Training Officer

## Clinical hub case study

### Areas addressed:

- Patient refusing treatment and hospital
- Capacity
- EoLC and DNAR

### Case details

The crew were called to an unresponsive 94 year old female. On arrival the patient was presenting with severe DIB, pulmonary oedema + and her 12 lead ECG was indicative of an inferior STEMI. The crew contacted the Clinical Support Desk as the patient was refusing to travel to hospital stating she understood the severity of her condition and the prognosis should she remain untreated. The crew had already assessed the patient's capacity prior to calling the desk. The patient had a complex medical history which included CCF. The patient was not known to any palliative team and no Advanced Directive or DNAR was in place.

### Clinical support desk input

The crew were advised to ensure that the LA5 (Capacity tool) was accurately completed. The next step was to contact the patients GP for on scene assistance of symptom control for example furosemide, pain relief, supplementary oxygen etc. Consideration was given to the administration of subcutaneous morphine for pain relief amongst its other therapeutic benefits.

The crew were informed that the GP could not attend until after morning surgery which would result in the patient being left with no symptom control for the next four hours. This was clearly not appropriate and as a result a local palliative care team was contacted to gain symptom control for the patient. The patient was not known to the palliative care team however the nurses agreed to attend.



### Outcome

The palliative care team provided a specialist nurse who was on the scene very quickly, to give medications. The crew remained on scene to assist the nurse and provided necessary equipment and oxygen.

On the arrival of the GP, the patient received an official DNAR as requested, appropriate symptom control and prescribed supplementary oxygen. The palliative care team deemed the patient was expected to die within the next eight hours. With this, a specialist nurse remained with the patient to manage her symptoms until the inevitable happened. The Clinical Support Desk liaised with the on call clinical advisor to authorise the crew to leave an oxygen supply on scene due to difficulties in obtaining prescribed oxygen for several hours.

The crew went above and beyond to assist this lady and respect her wishes.

### Points for consideration

Consent and capacity are complex yet essential aspects of patient care. In the above case the crew behaved impeccably to ensure the patient's wishes were respected whilst ensuring she received appropriate treatment. They applied critical thinking skills along with

utilising their existing knowledge of alternative care pathways.

It is well known that the assessment of capacity is time and decision specific, and a person's level of capacity can fluctuate. Some patients may demonstrate the capacity to make some decisions, such as whether to receive simple analgesia, but may not have sufficient capacity to make a decision to consent to a life-sustaining treatment and this should be taken into consideration in the assessment.

Gaining informed consent is an essential aspect of patient care and is closely linked to capacity. Consent is a defined, voluntary and continued permission given by the patient to the proposed intervention, whatever this may be. For consent or refusal to be informed and valid the person must be fully aware of all aspects of the intervention.

In the above case the crew ensured the patient understood the findings of their examination, the proposed treatment options and the consequences of refusing said interventions. As the patient displayed full capacity the withdrawal of her consent was valid and respected. It is pertinent to remember that just because the decision a person makes may, in your professional opinion, be unwise that does not make it wrong nor does it give you justification for going against their expressed wishes. Equally should a patient refuse your proposed treatment that does not mean your duty of care ends; you should always strive to act in the best interest of the patient and explore alternative options available to you.

In the above case the crew's behaviour was professional and appropriate. They fully respected the patient's decision and strived to get her the best care possible in accordance with her wishes whilst maintaining their duty of care responsibilities.

**Author: Kirstie Smith, Acting Governance and Quality Manager, Clinical Hub**

## Ring magnets: Reminder

It has come to the attention of the Medical Directorate that some confusion exists regarding the indications for use of a ring magnet. Ring magnets should **only** be used when a patient's ICD is firing inappropriately (i.e. firing when a patient is **not** in VT/VF causing pain and distress). There have been a number of cases recently



where in the cardiac arrest/ROLE situation a ring magnet has been used in an attempt to turn off a patient's pacemaker. This is **NOT** what the ring magnet is for. It will not turn off a pacemaker in fact it will switch the pacemaker to asynchronous pacing mode and should therefore not be used for such scenarios.

# Learning from experience

## Communicating with the patient's family

We recently looked at an incident where a patient was taken to a specialist facility rather than the nearest hospital. The clinical care of the patient and the triage decision were entirely correct, but the family went to the patient's local hospital. It took several hours for the family to work out where the patient was. This meant that important decisions about the patient's care that would normally be made in discussion with the family were delayed, and that the patient was alone for some time.



As specialist pathways become more common and we become more used to working within them, it is easy to forget that most people will assume that their relative will be taken to their local hospital when they call an ambulance. For this reason, it is important to make absolutely sure that the family know where you are taking the patient, and that they understand why. In a stressful situation, this important information may need to be repeated. This includes if you are redirected by the Intelligent Conveyance Hub (ICHub) or if a hospital is on a formal divert.

**Author: Neil Thomson, Assistant Medical Director East**

## Clinical update – Clinical Support Desk email group

The aim of the Clinical Support email address is to enable staff to submit non urgent clinical hub (CHUB) related questions to the team.

The team will aim to answer your query within a month of submission. This facility should not take over the roles of your station clinical team leaders however we will endeavour to answer any clinical and operational questions you may have. Examples may be feedback from a cardiac arrest call which involved the Medical Directorate, hospital transfer questions, EoLC/palliative care questions or consent and capacity queries.

For non-urgent CHUB enquiries please email [clinical.support@lond-amb.nhs.uk](mailto:clinical.support@lond-amb.nhs.uk)

## What it's like being deaf

Around one in six people in the UK have some form of deafness either partial or total loss of hearing in one or both ears. This can be from birth or later on in life due to illness, trauma, side-effects of medication, exposure to noise or old age. Deafness is graded as mild, moderate, severe and profound depending on the decibels (dB) a person can hear frequencies in a hearing test. There are two types of hearing loss however it is possible to have both:

**Sensorineural hearing loss:** Caused by damage to the sensitive hair cells inside part of the inner ear called the cochlea or the auditory nerve; this occurs naturally with age or as a result of injury.

**Conductive hearing loss:** When sounds are unable to pass from your outer ear to your inner ear, often as the result of a blockage such as earwax, glue ear or a build-up of fluid due to an ear infection, a perforated ear drum or a disorder of the hearing bones.

Depending on their level of loss deaf people use many different strategies, technologies and skills to communicate such as hearing aids, cochlea implants, lip reading, surgery and sign language, but there is no 'fits all fix' to help every deaf person. You will often see a sign with an ear and letter T which indicates a hearing loop is available for hearing aid users that can follow conversation as they transmit the sound directly to the hearing aid, unfortunately they pick up electrical interference from computer and lights, but they can be useful.

I was born with moderate-severe mid-high frequency sensorineural loss of 70-115dB, one ear is congenital loss and the other is caused from oxygen starvation at birth. I also have tinnitus which in my case is a constant high pitched ringing in both ears. This means I struggle with conversation and I can't hear some sounds like telephone ringers, pedestrian crossings or alarm clocks. It is made worse with back ground noise as I can't distinguish different sounds from what sounds like a wall of noise. I wear two digital hearing aids that although they assist me they do not completely "cure" my hearing loss. I also lip read too, however contrary to what is often shown on TV and films it is only possible to lip read around 30% of any conversation as mouth patterns are the same for many letters/syllables.

So it is important to establish the topic or context of a conversation as a lot of lip reading is word association or getting used to peoples phrases too. Hearing aids and cochlea implants will not help everybody with hearing loss but they can make a big difference to some, however others dislike wearing them as they are often uncomfortable and the loud sounds are very tiring too, some people with profound hearing loss only wear hearing aids to alert them to danger and can't actually hear a conversation. Personally, I way up the pros and

cons as I could not do my job without them. I also use British Sign Language (BSL) which I started learning about four years ago.

Access to health care for deaf patients is very challenging and often results in poor health than in the case of hearing people who have easier access to health information. Why is this? Well it comes down to communication, awareness & money. Many, but not all profoundly deaf people use BSL. Some of those people do not have a good understanding of English as the format of BSL is very different to English so it is not all ways possible to use pen and paper between doctor and patient as too much information is misinterpreted by both parties resulting in the potential for misdiagnoses or a patient misunderstanding their illness and the treatment involved.



Even though BSL has been around for hundreds of years it was only officially recognised by the Government as being a full, independent language in March 2003. The Equality Act 2010 states that service providers such as GPs and hospitals must make changes so that deaf people can use their services. These are called 'reasonable adjustments' such as providing a BSL interpreter for appointments. Sometimes organisations can't make the changes that deaf people would like. This might be due to cost or difficulty in executing the changes and can be challenging for small organisations that don't have a lot of money.

The law states that organisations don't always have to make all the changes we would like, but they must do their best within reason to be accessible to disabled people. In reality, this means BSL users often do not get an interpreter when visiting a GP or outpatients appointment and are asked to bring a

friend or relative or pay for their own interpreter which is expensive. In a recent case featured in the media, the hearing son of a profoundly deaf BSL patient was asked to attend an outpatient's appointment to interpret for his father.

He had to pass on the message from the doctor to his father that his cancer was inoperable and he had a few months to live. This is unacceptable practice, hence for the last two years deaf BSL users have been campaigning for a BSL Act which would make it law for service providers to provide a BSL interpreter when requested. Can you imagine bringing a friend or relative to what could be for a very embarrassing condition discussing personal information that you may wish to keep confidential? Or perhaps having to pay up to £150 for an interpreter for a ten minute appointment as the agency has a minimum fee of three hours?

This is why, when asked to take part in a short film to talk about EmergencySMS which enables deaf people

to text 999 to contact the UK's emergency services I asked to do it in BSL as not all BSL users will understand written English and it is the first BSL video to be featured on the LAS website. This film can be accessed at: [http://www.londonambulance.nhs.uk/calling\\_999/how\\_to\\_call\\_999.aspx](http://www.londonambulance.nhs.uk/calling_999/how_to_call_999.aspx)

I also visit deaf schools, clubs and community health fairs and teach basic life support in BSL and register people with EmergencySMS as access to the emergency services and the skills to help save a life as part of my work in the London Ambulance Service Deaf Awareness Forum: LAS DAF. If you would like more information or would like to be involved in the LAS DAF please contact myself or Mark Weller who chairs the DAF on: [LAS.DAF@lond-amb.nhs.uk](mailto:LAS.DAF@lond-amb.nhs.uk)

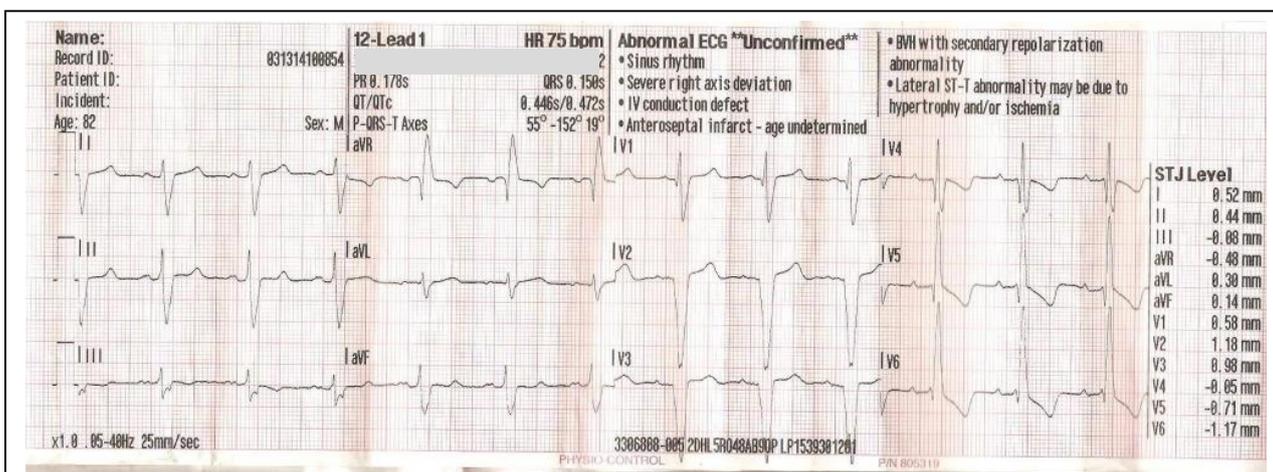
**Author: Richard Webb Stevens, Motorcycle Response Unit Paramedic, Waterloo Station.**

## ECG case study

We were called to an 82 year-old man who had collapsed at home after bending down to put his shoes on. On arrival our patient was lying on the bed after managing to get off the floor with his wife's assistance. Our patient stated that he had been feeling dizzy ever since returning from a seven day cruise the day before. While on the boat he had become unwell complaining of becoming breathless on exertion and was seen by the medical team on board who diagnosed a chest infection. After this assessment they prescribed a course of antibiotics and 40mg of Furosemide due to pitted oedema in both ankles and lower legs.

On examination the patient explained that the symptoms of breathlessness had subsided, he had no chest pain but was still feeling dizzy. Our observations were as follows: GCS 15, respiratory rate 16, sats 99%, pulse 75, BM 12.1, temp 36.1C, BP 98/58 lying on the bed with a standing BP 78/52. His chest was clear on auscultation and had a good colour with normal skin temperature.

This patient's previous medical history consisted of asthma and simple mirrored dextrocardia which he was under the care of Harefield Hospital for. A 12 lead ECG was carried out reversing all leads (see below), which showed significant abnormalities most notably lateral ST depression. When compared to the ECG both from the medical team on the boat and an ECG from Harefield Hospital they were all very similar. Therefore we conveyed him to the nearest ED for further investigations and he remained stable en route. On speaking to staff the following day we discovered they had rehydrated our patient and referred him back to GP to review his furosemide medication.



Thanks to Stacey Thrale, Paramedic, Pinner Complex for sending in this ECG case study.

# CARU focus

## Patients not conveyed to hospital by the LAS – clinical care and patient perceptions

According to a recent patient experience questionnaire, 75% of patients not taken to hospital rated their overall care by the LAS to be 'very good' or 'excellent'. Whilst these results are promising, the LAS aims for all patients to feel this same high level of care. CARU conducted a clinical audit (data collected in 2012) to assess if the patients included in this questionnaire - conducted by the Patient & Public Involvement and Patient Experience Department - were appropriately managed.

### Hear and Treat results (undertaken by CTA) – 115 patients

The LAS called back most patients (82%) for further assessment within the timeframe. However, only 74% of patients had their expectations about the length of time they waited met, indicating a disconnect between the LAS aspirational targets and patients' expectations.

We found that for a quarter of patients either an incorrect algorithm in PSIAM was selected, the algorithm selected was not followed appropriately or the outcome recommended by the system was not used, with selection of the correct algorithm seeming to be the most challenging factor as patients often present with a range of symptoms and signs.

Six patients reported not having trust and confidence that they were getting the best care and treatment possible despite the algorithm being selected and followed appropriately and the recommended outcome used. The change to the Manchester Triage System, which is a supportive tool, not an algorithm allows greater clinical autonomy to manage complex calls.

### See and Treat results – 60 patients

Patients were largely positive about the length of time they waited for an ambulance, even though the LAS' internal aspirational targets were not met for more than half of the patients.

Only 60% of patients had both an initial and final set of observations and a pain score was recorded for only 85% of patients. Correct clinical impressions and management plans were documented for 90% of patients, and appropriate advice was given to 88% of patients. Only one patient felt that the management plan did not deal with their main reason for calling 999; however an appropriate management plan had been put in place for this patient. When patients declined conveyance against the advice of the crew, only 23% had their capacity recorded.

See and Treat patients were more likely than Hear and Treat patients to record: LAS staff as being courteous; as having trust and confidence in staff, and record that the main reason for their call was dealt with completely.

### Areas to consider:

- Has an adequate assessment been undertaken to ensure a non-conveyance decision is safe?
- Have you recorded a full history and assessment to show this?
- What have your assessment and history told you is wrong with your patient?
- What are you going to do/have you done for your patient? Any immediate treatments or referrals?
- If the patient is refusing conveyance, do they have capacity to refuse? Or do you need to use the LA5 capacity tool?
- What advice does the patient need? Have you left a written copy of the advice with them on the PRF?

Full details of the clinical audit report can be found on the CARU pages of the Pulse or at: X:\Clinical Audit & Research Unit\Clinical Audit Reports\Non-Conveyed

### Forthcoming research projects

Clinical research over 2014 will prove to be an exciting year at the London Ambulance Service. We are due to be involved in a number of exciting collaborative research trials which may fundamentally change the clinical outcome for our patients in the future.

**PARAMEDIC2:** Hopefully commencing in autumn 2014, this multicentre double blind randomised control trial, with the University of Warwick, South Central, North East, West Midlands and the Welsh Ambulance Service will investigate the clinical and cost effectiveness of adrenaline in out of hospital cardiac arrests.



Evidence from both interventional and observational studies currently suggests that administering adrenaline in out-of-hospital cardiac arrest may result in increased ROSC but

results in no survival to discharge benefit and in poor neurological outcome. However this has not been investigated in a large scale clinical study and therefore the question regarding adrenaline's effectiveness in out-of-hospital cardiac arrest remains unanswered.

PARAMEDIC2 presents an exciting opportunity for paramedics within one area of the LAS to actively participate in a research project in which they will administer either adrenaline or a saline placebo to patients in cardiac arrest. As the trial drug packs will be blinded to reduce bias, protocol trained paramedics attending a cardiac arrest will be unaware of whether they are administering adrenaline or a placebo to the patient. It is hoped that the PARAMEDIC2 trial will provide the robust evidence required, which in turn could

save thousands of pounds for the NHS and ensure patients of the LAS receive the best possible outcome following the care we provide.

#### **ARREST Trial Pilot:**

Commencing in summer 2014, paramedics based at Bloomsbury, Waterloo and Westminster Ambulance Stations have an exciting opportunity to participate in the three month ARREST trial pilot with King's College London. This randomised control trial will investigate whether survival rates for patients suffering out of hospital VF or VT cardiac arrest improve if they receive immediate coronary angiography and percutaneous coronary intervention (PCI). This pilot will recruit ten patients and if successful may lead to a larger trial.

#### **FILTR Study - Field triage tool for ruptured aneurysms:**

This one-year observational study, with St George's University of London, aims to validate an electronic pre-hospital triage tool (developed last year using LAS data), that is designed to recognise ruptured abdominal aortic aneurysm (rAAA) in patients experiencing acute abdominal pain. It is often difficult to diagnose rAAA as a range of conditions present with signs of abdominal pain and therefore a method of recognising rAAA in the pre-hospital environment is crucial as it will then allow the patient to be taken to an appropriate centre for life saving treatment.

Paramedics will be asked to use the triage tool which has been designed for use as an application that can be downloaded to smartphones and other devices after they have appropriately conveyed a patient. If the tool is found to successfully identify rAAA, a follow up multi-centre randomised control trial will take place in which patients will be assessed using the triage tool and conveyed to the closest vascular centre for immediate treatment if the tool indicates they are likely to be experiencing a rAAA.

Should these studies provide evidence that the use of the rAAA pre-hospital trial tool and direct conveyance to a specialist centre results in better outcomes for this group of patients, it is hoped that the triage tool can be adopted nationally and help save lives.

#### **Activated charcoal feasibility trial:**

Plans are in place for a 12-month study investigating the feasibility of administering activated charcoal in the pre-hospital environment to patients that have experienced an acute overdose of toxic, non-sedating drugs within an hour of ingestion. Patient tolerance to activated charcoal and acceptability to clinicians will be assessed. If the administration of activated charcoal proves to be feasible we hope that it will be rolled out across the Service in the future ensuring that patients experiencing overdose receive appropriate and timely care.

For further information about forthcoming research within the LAS please contact the Clinical Audit & Research Unit on 02077 832504 or [caru.enquiries@lond-amb.nhs.uk](mailto:caru.enquiries@lond-amb.nhs.uk).

## **Off-duty ambulance staff calling 999 for ambulance service assistance**

A member of staff who recently needed to dial '999' for a patient whilst they were off duty, questioned why they needed to be taken through the Medical Priority Dispatch System (MPDS), rather than just asking for an ambulance as a 'Red 1 Call'. Asking an Emergency Medical Dispatcher (EMD) to make the call a 'Red 1', 'Cat A' or indeed any category of call means that the EMD will have to enter inaccurate or even false data. Also answering "I don't know" means that the response 'Unknown' is placed into MPDS, which in some circumstances can lead to a call being given the wrong category. Trying to short circuit the system by calling the Clinical Hub (CHUB) will only mean that the call will be further delayed because CHUB staff are not able to enter calls into the system.

Advice to staff from Medical Directorate and EOC Staff is that, wherever possible, hand the phone to the patient, or if they are unconscious (thus you will be initiating some form of first aid) to another bystander. This means that you can render aid whilst the patient / bystander continues the '999' call. Allowing the EMD to take them through the MPDS algorithm(s), allows the EMD to undertake their job properly and get the correct resource(s) to you, and in fact is quicker than if you try and circumvent the MPDS questioning.

If MPDS indicates that an ambulance is not immediately required and the call is referred for enhanced assessment this should be allowed to happen – those who need an ambulance will be referred straight back in to the 999 system at an appropriate category after the enhanced assessment.



Trying to go down the 'HCP Admission' route, (known as Card 35 in MPDS), is also not an option. The HCP admission route assumes that you have full clinical responsibility for that patient (not

rendering first aid as a good Samaritan act) – and for their admission and referral route(s) to the preferred hospital of admission for the patient's clinical problem(s).

Please also bear in mind that some ambulance services use a system called NHS Pathways, thus the system you are used to in London may well be different to that in the area you find yourself calling '999'. The advice though is still the same – let the EMD do their job and take you through the questions – they are as much for your protection as for the ambulance service concerned.

**Author: David Whitmore, Senior Clinical Advisor to the Medical Director and Dr Fenella Wrigley, Deputy Medical Director.**

## Off duty HCPs (including Doctors) offering assistance at a 999 call

The Medical Directorate is aware that, not infrequently, assistance is offered to LAS crews attending incidents by off duty HCPs (including Doctors). Whilst following the guidance below please be aware that London has a large number of pre-hospital Doctors – if they are despatched to assist you they will have a CAD number and have been sent by EOC.

The following advice is provided to LAS staff when an HCP is on scene at incident:

- Introduce yourself to the HCP and politely state you will now take responsibility for the patient
- If the HCP undertakes any procedures on the patient (eg cannulation, intubation, administration of medication) they MUST travel with the patient to hospital.
- Ensure that the HCP's full name, role, contact details and professional body registration details are recorded on the PRF along with any actions taken by the HCP
- If there are any concerns about the validity of the information provided call the Clinical Hub immediately – it may be necessary to call the police if the 'HCP' has initiated any treatment or undertaken any procedures.
- Remember that the clinical responsibility lies with the LAS

Author: David Whitmore, Senior Clinical Advisor to the Medical Director and Dr Fenella Wrigley, Deputy Medical Director.

- The LAS took part in the AGM awareness day in February 2014, having a display on FGM at HQ and publishing information on the pulse.
- The LAS are introducing the DH flowchart for use by clinicians.
- Improving documentation of FGM

The DH have stated that **all clinicians**, regardless of organisation are to record into clinical notes when FGM is identified, and what type it is. A safeguarding referral should be completed for all cases where FGM/a risk of FGM is suspected/confirmed.

Clinical staff must record age of patient when having undergone FGM. The Trust is currently looking at including this information in on the PRF but initially staff are asked as a minimum to record the details in the free text box.

Staff should follow the FGM flowchart for appropriate actions to be taken in relation to notifying partner agencies. This can be found on the Pulse at <http://thepulse/operational/13722413454184.html>

Author: Alan Taylor, Head of Safeguarding

## National Review of Asthma Deaths (NRAD)

The 'Why asthma still kills' report was published on 6 May 2014 to coincide with World Asthma Day. For a 12 month period from February 2012, deaths from asthma in the UK were reviewed systematically and were subject to an in-depth multidisciplinary confidential enquiry. The review has found deficiencies in both the routine care of asthma and the treatment of attacks; there was 'room for improvement' in the care received by 83% of those who died. Nearly half of people who died did so without seeking medical help or before emergency care could be provided. Improvements are needed so that both patients and healthcare professionals are better at recognizing the signs of deterioration in asthma, and are better at acting quickly when faced with a potentially fatal attack.

Key findings of those patients who died from asthma:

- Personal asthma action plans (PAAPs), acknowledged to improve asthma care, were known to be provided to only 23% of patients
- 43% had not received an asthma review in the last year
- 47% had a previous history of hospital admission for asthma (21% had attended an ED at least once in the last year and over 50% of those had attended twice or more)
- 9% were treated as having mild asthma and 49% for moderate asthma (it is likely that many of these had poorly controlled and/or undertreated asthma)
- The use/prescription of over 12 inhalers per year is a red flag! Often reliever inhalers are over used and

## Female Genital Mutilation

Female Genital Mutilation (FGM) has been illegal in the UK since 2003 yet there have still been no convictions in the UK. FGM constitutes child abuse and causes physical, psychological and sexual harm which can be severely disabling. Health care professionals are key to providing support to victims of FGM and intervening to prevent girls and women from being harmed.



The Government's Every Child Matters and Children Act 2004 require all agencies to take responsibility for Safeguarding and Promoting the welfare of every child.

The Department of Health (DH) had issued guidance in relation to FGM along with intercollegiate recommendations on Tackling FGM in the UK. So what are the LAS doing about FGM;

- FGM was included in the Core Skills Refresher (CSR) training for all frontline staff in 2013-2014 and has been updated in the 2014-15 CSR training.

preventer inhalers under used. 4% of patients had been prescribed more than 50 inhalers in one year! These patients are likely to have poorly controlled asthma and may require urgent review.

- Surprisingly, median age at time of diagnosis was 37 years.
- Psychosocial factors contribute to the risk of asthma death, including depression, mental health issues and substance misuse.

In the last six months, the LAS attended 5,840 cases of asthma (where this was documented as the primary illness code). 85% were conveyed, 9% non-conveyed and 4% conveyed to an ACP.

Although there were not specific recommendations in the report directly relating to pre hospital emergency care, from the recommendations produced the following guidance may assist in reducing future risk of death from asthma:

Caution! Even mild asthma can lead to a sudden, fatal asthma attack! Bear this in mind when you are treating an asthmatic patient, particularly where they haven't responded to their own inhalers.

Observe inhaler technique where appropriate and if poor, advise on correct technique (short videos are available on The Pulse at <http://thepulse/patients/13703550554220.html>)

#### Important questions to ask asthma patients:

- How many inhalers have you been prescribed in the last year? (Red flag if > 12)
- Have you had an 'asthma review' in the last year?
- Do you have a personal asthma action plan (PAAP)?
- Have you been prescribed two or more courses of systemic steroids (oral or injected) in the last 12 months?

If you are concerned about the answers to any of the above questions then strongly advise the patient to contact their GP surgery for a review.

**Bottom line:** If any asthma patient is sick enough to require the attendance of an emergency ambulance then they should be strongly advised to inform their GP of this (even though will probably attend an ED). If you have any concerns that the patient is unlikely to do this for themselves e.g. psychosocial factors such as mental health issues/substance misuse then you should alert the GP yourself as to your concerns and the need for review (without delaying emergency treatment). Doing so may prevent a future death from asthma.

If you are interested in reading the full NRAD report go to: <http://www.rcplondon.ac.uk/projects/national-review-asthma-deaths>

## Key clinical messages:

### Use of tranexamic acid (TXA)

There have recently been a number of cases involving the inappropriate administration of TXA

TXA is licensed to the LAS under a 'Patient Group Directive' (PGD), which staff should have available at all times to refer to.

#### Indications:

- Patients with TIME CRITICAL INJURY where significant internal/external haemorrhage is suspected or known
- Injured patient >12 yrs old, fulfilling Step 1 or Step 2 on the LAS Major Trauma Decision Tree who are believed to be at risk of significant haemorrhage.

There are currently a number of trials being undertaken outside of the LAS looking at the suitability of TXA administration in significant bleeding other than due to trauma. The results of these trials are not yet published and therefore the above criteria remain and are the only criteria that staff should follow regarding the administration of TXA.

Administration for PV bleeding, Post-Partum Haemorrhage, and GI bleeds are **NOT** indications for the use of TXA within the LAS.

Please refer to previous Clinical Update, issue 36 (March 2014) for further guidance.

### UK Clinical Practice Guidelines 2013 FAQs

The document 'LAS 2013 UK Guidelines FAQ' produced by the Medical Directorate has been updated to incorporate clarification regarding the administration of naloxone, buccal midazolam and morphine (the changes are highlighted in blue).

This document can be found at:

<http://thepulse/operational/13859854512612.html>

### Extricating the cardiac arrest patient

Resuscitation at scene has become the mainstay of treatment of cardiac arrest in the majority of patients, however circumstances remain where it necessary to extricate cardiac arrest patients from the scene during an active resuscitation attempt.

Every effort **MUST** be made to extricate patients in the supine position, for example using the rescue board, carry sheet or MIBS stretcher (The MIBS stretcher is carried by the HART team and advanced paramedic practitioners and is particularly useful where the patient is large and/or difficult to extricate).

Use of the carry chair is **NOT** appropriate and significantly impacts on the team's ability to maintain good quality resuscitation and airway management.

An extrication strategy should be considered at an early stage to ensure that the patient can be removed in the supine position should the decision to convey be made and further assistance requested if required.

In cases where staff are concerned about their ability to extricate in the supine position **early** support should be sought via the Clinical Hub.

Complex Management Teams are reminded that carry sheets are an essential extrication device which should be readily available to staff.

Author: Jaqualine Lindridge, Training Officer