Appendix 'E'
Positional Asphyxia and Acute Behavioural Disturbance

Introduction

E1 The aim of this procedure and guidance is to draw attention to the conditions known as Positional Asphyxia and Acute Behavioural Disturbance. This also contains information on restraint techniques, monitoring, medical response and transportation of subjects.

Legal Basis

E2 When police officers are required to use force to achieve a lawful objective (such as making a lawful arrest, acting in self-defence or protecting others) the legal basis are to be found in:

- Common Law.
- Section 3 Criminal Law Act (NI) 1967.
- Article 88 Police and Criminal Evidence (NI) Order 1989 (PACE) or any other legislation that gives powers involving use of force.

Positional Asphyxia

What is Positional Asphyxia

E3 Positional Asphyxia is a form of asphyxia (a state of deficient supply of oxygen to the body that arises from abnormal breathing) which occurs when someone's position prevents the person from breathing adequately.

E4 There is a risk of Positional Asphyxia when restraining a person (in prone restraint). There is a risk also in a seated position pushed forward with the chest on or close to the knees, reducing the ability to breath. In simple terms, a subject can stop breathing (i.e. asphyxiate) because of the position they have been held in. Positional Asphyxia is likely to occur when a subject is in a position that interferes with their inhalation and/or exhalation and they cannot move from that position. In relation to COVID-19 that causes severe respiratory distress in severe cases, there is a possible increased risk of respiratory distress.

Causes of Positional Asphyxia

E5 Positional Asphyxia is likely to occur:

- When a subject is prone causing their stomach to press up to their ribs.

- When a subject is sitting (possibly in a vehicle) and their head drops between their knees compressing their chest and abdomen.
- When a subject's head falls forward, restricting their windpipe.
- Direct force on the neck/windpipe.
- Also see E4 above regarding the restraint position of subject seated forward with knees up to chest

Signs and Symptoms of Positional Asphyxia

E6 Police officers should pay close attention when they recognize the following warning signs and symptoms, **taking immediate action to remedy them**, applying emergency aid and summon emergency assistance if required:

- Body position restricted to prone, face down.
- Cyanosis (face/mucous membranes (lips) is discoloured blue due to lack of oxygen).
- Gurgling, gasping sounds.
- A subject's behaviour suddenly changes from 'active' to 'passive' i.e. from loud and violent to quiet and tranquil.
- Panic can be from air hunger.
- Subject tells the police officer that they cannot breathe.
- Subject states or shows signs of COVID-19 or other respiratory condition.

E7 The following factors contribute to Positional Asphyxia:

- Subject's body position results in partial or complete airway constriction.
- Alcohol or drug intoxication (the major risk factor).
- Subject's inability to move from a particular position.
- The subject is prone.
- Obesity (**particularly those with large stomachs/abdomens**).
- Restraints (including Limb Restraints).
- Restraint of hands behind back while leaning forward, meaning there is no possible means of the subject righting their posture.

- Stress.
- Respiratory muscle fatigue following violent muscular activity (such as fighting, struggling or running away). See E10 below regarding Acute Behavioural Disturbance (ABD) and the risks of over exertion.
- Pressure applied to the back of the neck, torso or abdomen of a subject held in the prone position.
- Pressure applied restricting the shoulder girdle or accessory muscles of respiration while the person is lying down in any position.
- Persons in an excitable condition or exhibiting bizarre behaviour.
- Acute respiratory distress due to severe COVID-19.

N.B Police officers should be extremely mindful of the risks involved in using their bodyweight on the upper body of a subject during restraint. The prone position should be avoided if at all possible, or the period for which it is used minimised to the least possible time, while constantly monitoring for any of the above.

Causes of Death in Positional Asphyxia

E8 Positional Asphyxia can occur rapidly, and post mortems have failed to identify any other anatomical or toxicological findings sufficient to explain the death.

Authorised Professional Practice

E9 Further information on Positional Asphyxia is available in the College of policing Authorised Professional Practice on Detention and Custody, which is available here.

Acute Behavioural Disturbance

What is Acute Behavioural Disturbance

E10 When a subject exhibits confused, fearful, agitated, violent psychotic and/or aggressive behaviour, it is a spectrum from mild, to moderate, to severe. Not all signs may be present and to varying severity. There may no signs exhibited if the subject is exhausted and close to collapse. Subjects with ABD are usually fearful, confused and paranoid. Intoxicated subjects are more likely to be aggressive and not paranoid. Historically, there have been various names for these symptoms - drug induced psychosis or excited delirium. This does not always mean ABD and vice versa. It is not a cause of death. It is an umbrella term for a collection of symptoms and behaviours. **The correct Police and NHS term is Acute Behavioural Disturbance (ABD).** These outdated terms should not be used when dealing with a subject suffering from ABD.

Increased activity/agitation may be caused by stimulant drugs (adrenaline over drive) such as cocaine and/or mental health medication/condition.

The raised adrenaline causes the signs and symptoms and increased physical activity causes acidosis.

Think about when you go on a run, what happens when you stop? You breathe faster (to get more oxygen and to remove carbon dioxide), your legs may burn (lactic acid).

Anything that restricts you being able to breathe deeper and faster means you cannot get rid of acidosis, which raises risk. This was the theory behind positional asphyxia. However, it is not just positional but anything that affects breathing including continued physical activity. This can include the person's physical activity against the restraint itself.

Psychotic behaviour means perceiving or interpreting things differently from those around them, this may involve hallucinations or delusions (NHS definition, via IMSAP).

There is often a difference with persons who are affected by alcohol. They usually present as aggressive, may be manipulative but NOT fearful or paranoid or confused.

E11 Police Officers/Civilian Detention Officers should also make themselves aware of the 'LEARN' online course 'Acute Behavioural Disturbance'. This should be completed prior to attending mandatory PSP refresher training.

COVID-19

E12 If a person is suffering from severe COVID-19 symptoms they may also be suffering from Hypoxia - This is where an individual's blood oxygen levels are already reduced as a consequence of severe COVID-19.

COVID 19 in severe cases causes acute respiratory distress. There is a likely increased risk in these cases from ABD and its risk of sudden death and of respiratory distress which is positional.

Risk Factors for Death in ABD

E13
- External risk factors are stimulant drug use, heart damage from chronic drug use, restraint, positions that inhibit breathing.
- Alcohol can prolong the effect of drugs.
- Internal risk factors are obesity, psychiatric, respiratory, cardiac and kidney conditions.
- Medical conditions, meningitis, head injuries, low blood sugar, sepsis.
- Medications, anti-psychotics, anti-depressants.
- Prolonged restraint can be a contributing factor.

Signs and Symptoms of Acute Behavioural Disturbance

E14
- Behaviour - confused, bizarre, disorientated, agitated, fearful, paranoia, hallucination, impending doom.
- Incoherent, bizarre speech.
- May be hot to the touch, excessive sweating, undressed.
- Unexpected physical strength.
- May be insensitivity to pain, restraint/force.
- Rapid breathing and increased pulse rate.
- Aggressive behaviour on its own not usually ABD.

This list is not exhaustive. It is important to note that there is a wide spectrum of presentation and not all cases will be severe. Mild cases often settle down if not aggravated or prolonged by sustained activity, drugs or other factors. In late presentation of ABD they may be exhausted and not showing the agitation. These cases may be close to sudden collapse and should be taken directly to A&E and not custody. Be wary of a detainee who becomes calm and silent which might signal pre-cardiac arrest phase. The above are signs of an adrenaline over-drive. The best way to manage this adrenaline overdrive is to calm the person. This may be via verbal de-escalation or containment (if appropriate) and they may respond better to a family member or Health Care Professional.

Causes of Death in Acute Behavioural Disturbance

E15
- Post-mortems may not give a case for the ABD.
- Drugs and alcohol levels may not be high.
- A hyper-stimulated state leads to increased and sustained physical activity. Using up oxygen (hypoxia) and producing carbon dioxide (CO2).
- If CO2 is not removed by increasing breathing, the raised CO2 causes an acid state (**acidosis**). Exertion and restraint increases acidosis.
- Hypoxia, toxins (drugs), acidosis causes high potassium which can cause cardiac arrest.

The cause of death is not usually physical but more often metabolic which is why post mortems do not generally reveal the cause of death. Cause of Death is largely determined at inquest. There are often many contributing factors for example drugs, obesity, with restraint contributing to ongoing physical activity and henceforth worsening of acidosis.

Low oxygen (hypoxia) and high carbon dioxide (hypercarbia) are contributors to acidosis. Increased CO2 is removed by increased breathing, but if breathing is reduced, or insufficient due to position or continued physical activity (restraint), this causes a rise in acidosis.

Any restrictions to breathing for example restraint, positions such as on their front, obesity can contribute but are not usually main factors to death. Many deaths have occurred even in recovery position.

Note that persons who are intoxicated with alcohol or deliberately behaving badly will NOT usually be fearful or paranoid, this is how to differentiate between genuine ABD.

In all cases 999 ambulance should be called to assist.

Moderate and severe ABD should never be taken to custody even if the paramedics say so.

Often, officers and staff don't know how long the person has been in an agitated state before they arrive on scene. **Therefore, even short periods of prone restraint can present risk as the person may have been agitated for a long time before officers arrive**.

Once it is safe to do so, officers and staff must always 'take stock' of the situation they are dealing with. This is especially important with prone restraint as the health of vulnerable people can sometimes deteriorate rapidly and officers and staff must then follow their First Emergency Life Saving (First Aid) training.

As with all police incidents, officers and staff must consider and document their decision-making and actions comprehensively as they will be scrutinised very closely should something go wrong.

Restraint Concerns

E16
- In ABD the subject may be extremely strong.
- May be paranoid/delusional so may well resist for long periods, even to the point of collapse.
- Subject may be in severe acidosis (unwell) prior to arrival of police.
- The longer the restraint, the more dangerous it becomes.
- Once it is safe to do so, officers must always 'take stock' of the situation they are dealing with. This is especially important with prone restraint as the health of vulnerable people can sometimes deteriorate rapidly and officers must then follow their First Aid training.
- Officers must balance their choice of tactical option against the risks posed to the subject, are there less medically impactive options available? Are the choices made

more likely to be injurious to the subject than others? The subject suffering from ABD is in a medical emergency and their welfare must be considered at all times.

The following are risk factors in restraint related deaths:

- Drugs - especially stimulant drugs like cocaine.
- Alcohol can prolong the effect of drugs.
- Mental health conditions and medications – anti-psychotics can cause abnormal heart rhythm.
- Obesity can reduce breathing ability/diaphragm expansion.
- Pre-existing heart conditions - Angina, previous heart attacks may have reduced capacity to withstand increased and sustained activity. This is why previous advice linked obese persons with increased risk – they are more likely to have cardiac risk factors.
- Pre-existing kidney conditions already have acidotic state but reduced ability to manage increased acidosis.
- Pre-existing respiratory conditions - Asthma or Chronic Obstructive Pulmonary Disease (COPD) may decrease the ability to reduce the level of CO2 by breathing.
- Prolonged restraint **not just** positional asphyxia. Prolonged restraint increases acidosis, which increases risk of sudden death. It is important to note that 'positional asphyxia' is not the only cause – people have died even when maintaining them on their side in the recovery position.

'Cameras' mnemonic

E17 Cameras is a specific mnemonic to assist officers dealing with suspected ABD.

C - Contain, avoid/minimise restraint where possible.
A - Ambulance, update continuously.
M - Monitor, vital signs.
E - Explain (and listen) about what you are doing to person and family, use friends/ family to reassure.
R - Relay information to ambulance & from family.
A - ABD = A&E (never custody or a 'place of safety' under the Mental Health (NI) Order 1986).
S - Share, information with Health Care Professional (HCP) - HCPs if available may consider sedation.

Responding to ABD

E18 Any subject exhibiting symptoms of Acute Behavioural Disturbance should be treated as a **Medical Emergency** and should be medically examined immediately at a hospital regardless of any subsequent behaviour or apparent recovery. **Under no circumstances should a person suspected of suffering from ABD be taken to a police station**. If en route to hospital, or awaiting the arrival of medical assistance, police officers should prepare for the possible use of Cardio-Pulmonary Resuscitation (CPR).

ABD = Medical Emergency = Ambulance Cat 1 Response

Authorised Professional Practice

Further information on Acute Behavioural Disturbance is available in the College of policing Authorised Professional Practice on Mental Vulnerability and Illness, which is available here.

Restraint Techniques

E19 The following restraint techniques should be considered with regard to Positional Asphyxia and Acute Behavioural Disturbance:

- Where practicable, avoid prolonged restraint.
- Where practicable, be aware of human factors such as **fixation error**, which can lead to prolonged restraint. **Fixation error** is when in a crisis the brain's perceptual field narrows and shortens, we become seized by a tremendous compulsion to fix on the problem we think we can solve and quickly lose awareness of everything else.
- Once it is safe to do so, officers must always take stock of the situation they are dealing with. This is especially important with prone restraint as the health of vulnerable people can sometimes deteriorate rapidly.
- Where practicable, avoid any position that restricts breathing (e.g. face down position). At the earliest opportunity sit the person up or allow them to find the most comfortable position.
- Where practicable, for example in a custody environment where additional resources are available, consider appointing a Safety Officer (see E20 below).
- Prolonged resistance may continue despite the use of handcuffs, batons, irritant spray etc. This can present additional risk.
- Any delay in this process must be justified.
- Treat as a medical emergency.

Safety officer

E20 The role of a safety officer is:

- Monitor the welfare and responsiveness of a person during a prolonged restraint.
- Provide communication and instruction to the subject and to restraining team.
- Try to build a rapport with the person to help maintain control.
- Any person involved in the restrain irrespective of rank, role or length of service should **speak up and speak out** if they identify any issue or concern in regards to the wellbeing of the subject. Other officers may be focused on what they are doing and miss keysigns.

REMEMBER - SPEAK UP AND SPEAK OUT

Monitoring Subjects Under Restraint

E21 The following are signs that you should be looking out for:

- Colour of face/skin (blue/reddened/purple) - This suggests lack of oxygen.
- Are they sweating, hot to touch - They could be suffering from sepsis (infection), ABD or other medical conditions.
- Breathing rate – is it fast or slow - This suggests they are trying to get more oxygen in (and remove carbon dioxide). If you are able to count more than 25 breaths per minute or they simply appear to be breathing too fast –treat as a medical emergency.
- Pulse rate – is it fast - A pulse rate of 130 per minute or above – this is an indicator that they are under influence of drugs/alcohol and that their circulation is being overdriven. Anyone with underlying heart conditions will be compromised. If in doubt, treat as a medical emergency.
- Making noises but not coherent speech- It is a commonly held belief that if a person is making noises they are okay. This is correct if they are speaking to you normally (understandable speech). If the noises are incomprehensible, then the concern is whether they are under influence of drugs/alcohol, ABD, mental illness, or medical conditions such as a stroke. If in doubt, treat as a medical emergency.
- Calm period or alternating between calm and agitated- This can mislead officers to think the person has calmed down. Be cautious of fluctuating/alternating calm and agitated periods. This can indicate the onset of tiredness/fatigue and potential collapse. If in doubt, treat as a medical emergency.

Medical Response

E22 The following should be noted when briefing medical staff:

- Officers must inform Ambulance or A&E staff of any restraint, injuries, mental health or drugs concerns.
- It is essential to pass on particular information as accurately and succinctly as possible to medical crews.
- NATMIST - This acronym is taught within First Aid Training and will ensure all necessary information is conveyed succinctly as possible.

Name

Age

Time

Mechanism of injury

Injury/illness

Signs & symptoms

Treatment given

- Try to obtain information from friends, family, members of public (e.g. drug use or mental health issues).
- Information will be obtained from all sources to support the National Decision Model process during the incident, justification and later investigation purposes.

Assisting medical staff

E23 The following should be noted when assisting medical staff:

- In order to get a person suffering from ABD to A&E, a Medical Practitioner may need to administer sedation.
- Once at the scene, a Medical Practitioner will have clinical responsibility for the patient and sedation is a pure healthcare decision.
- A Medical Practitioner may request police to restrain so sedation can be administered.
- Restraint for this particular purpose may be lawful.
- Police should satisfy themselves of lawful authority to restrain.

- If a person is not otherwise in police detention, two most relevant acts to consider will be Section 9 & 12 Mental Capacity Act (Northern Ireland) 2016 and Section 3 Criminal Law Act (Northern Ireland) 1967.

- MCA enables acts to be taken in the person's best interest where they lack capacity – restraint must be needed to save the patient's life or prevent significant deterioration and force used must be proportionate to the likely seriousness of harm to the patient.

- Where restraint is mainly to prevent a Medical Practitioner being assaulted, Section 3 CLA may give lawful authority to act.

Transportation

E24 The preferred options for transport to Hospital Accident and Emergency Department are:

1. Convey in ambulance, follow in police vehicle;

2. Convey in ambulance with police officers in ambulance;

3. Convey in police vehicle, a cell van is preferable if possible, with ambulance staff in police vehicle;

4. Convey in police vehicle, a cell van is preferable if possible.

Good practice is option one followed sequentially as shown above as the situation allows.

However, officers should follow any local policy or guidance in relation conveying medical emergencies in police vehicles.

E25 When transporting a subject:

- The condition of the subject should be checked prior to transportation.

- Where possible, the subject should be monitored during the journey.

- The subject should not be transported in a prone, face down position. In cases where transportation in a face down position is unavoidable, constant supervision of the subject is of paramount importance.

- The condition of the subject should be checked at the conclusion of the journey.

Records

E26 Record comprehensive evidential notes to document the event in detail, account for decisions and action taken, based upon the information known at that time.

Records should include:

- Describe the subject and their behaviour.
- How did their behaviour make you feel.
- Force used or attempted by police -describe in detail.
- Reactions of subject to force used - i.e. effective or ineffective.
- How the person was restrained.
- Subject's resistance to being restrained.
- How the subject was transported.