

# The Newcastle upon Tyne Hospitals NHS Foundation Trust

## Management of Poisoning and Drug Overdose in the Royal Victoria Infirmary

Effective From: April 2011

Review: April 2014

### 1 Introduction

This document sets out the operational policy for managing adult clinical toxicology patients admitted onto the RVI site. It is intended to guide medical and nursing staff, to provide information on the appropriate pathways of care and to detail the resources available to support management of these patients. It does not cover children (<16 y) or the management of patients in the Emergency Department.

### 2 Management in the Assessment Suite

#### 2.1 Source of Patients

Most patients arriving at the assessment suite (AS) will come from one of the following sources.

##### i) Direct Ambulance Triage

The Northumbria Ambulance Service (NAS) triage policy (Appendix 1) encourages ambulance staff to bring overdose patients directly to the AS if they meet the following criteria

- **Fully conscious or responding to voice**
- **16 years of age or older**
- **not violent, disruptive or aggressive**
- **not simple alcohol intoxication**

NAS will warn the AS of the arrival of a patient via direct ambulance triage. Patients who initially meet these criteria but who deteriorate to become critically ill will be diverted to the neighbouring Emergency Department (ED), where resuscitation facilities and appropriate staff are available on a 24/7 basis.

##### ii) Transfer from the Emergency Department (RVI), Minor Injuries Unit (RVI) or Emergency Admissions Suite (EAS, Freeman Hospital).

Patients who have presented to these sites may be transferred to the AS provided they meet the following criteria:

- **Medically stable and appropriate for inter-hospital transfer (patients at other hospital sites)**
- **Not requiring critical care admission**
- **16 years or over**
- **Require admission to a medical bed**
- **Primary medical problem, rather than primary psychiatric problem**
- **Medical beds available in AS**

Patients falling outside these criteria should only be transferred to AS after the individual case has been discussed with the Consultant or SpR in the AS and the transfer agreed. Patients who should generally **not** be transferred to AS include:

- **Patients whose problems are principally psychiatric** (including patients awaiting psychiatric assessment)
- **Patients who do not require admission to a medical bed**
- **Patients requiring critical care** (who need to be transferred to the most appropriate ITU or HDU, in consultation with critical care staff)

### iii) **Self-presenting patients (“walk-ins”)**

The small numbers of patients who present in this way are managed in the AS in the same way as patients presenting via ambulance triage.

## **2.2. Management**

### **2.2.1 General points**

The following principles should be applied, as mandated by NICE guidance.

- Staff should ask patients if there are any specific personal, cultural, religious or other factors that need to be considered when examining or treating them, and make reasonable efforts to accommodate these.
- If an individual presents to services alone, staff should ask if there is anyone the service user would like to contact, and offer to make contact or provide access to a phone.
- People who self-harm should be given the choice of having a friend, relative or advocate present during assessment and treatment.
- Healthcare professionals should provide emotional support and help if necessary to any relatives/friends/carers present.
- Patients should be provided with clear and understandable information about the care process.
- A member of staff should keep in regular contact with the patient to ensure their safety and update them.
- When necessary, information should be provided in languages other than English (e.g. via an interpreter), and in an appropriate format for people with sight, learning or literacy difficulties.
- Confidentiality and its limits should be explained to patients and their relatives/carers, e.g. it is made clear that clinical information is extended beyond the clinical team only if the quality of their care and/or the safety of another depends on this, and then only to those who need to know

### **2.2.2 Role of the nurses**

This is set out in the flow diagram in Appendix 2.

On arrival in the AS the patient will be seen immediately by a nurse and allocated to a suitable bed. Unstable patients will be put in the monitored bay. The appropriate AS doctor will be informed of the arrival of the patient.

Nursing staff will perform baseline observations (pulse, blood pressure, temperature, oxygen saturation, GCS) and an ECG will be performed if the patient has taken a cardiotoxic substance (Appendix 3).

A MEWS assessment will be performed and recorded.

It is their responsibility to arrange for a doctor (e.g. F1/F2) to see the patient within a time appropriate for the patient's clinical condition, e.g. immediately in the case of a patient who is unstable or requires immediate treatment (e.g. paracetamol OD).

If the patient meets criteria for activated charcoal administration, i.e. they present within an hour having taken a toxic dose of a drug (defined in high toxicity substance list – Appendix 4) this may be administered by the nurse using a defined protocol (Appendix 5).

Laboratory blood tests will be performed according to a standard protocol (Appendix 6) by appropriately trained medical or nursing staff. A record will be made in the multidisciplinary care pathway of the tests done *and the time that these were taken*. These staff may also insert an intravenous cannula if there is a clinical indication and they have received appropriate training (Appendix 7). Further information on appropriate use of laboratory tests, including access to joint guidance issued by the National Poisons Information Service and the Association for Clinical Biochemistry, is available via TOXBASE (see below).

### **2.2.3. Role of the junior doctors**

The registrar (29918) or monitoring bay doctor (29920) will be informed of the arrival or impending arrival of the patient.

All OD patients will have a brief medical review within 30 minutes to decide how rapidly more detailed medical assessment is needed.

A pro forma multi-disciplinary care pathway is available for recording salient clinical details of poisoned patients and should always be used by medical and nursing staff. This simplifies the task for admitting staff and prompts them into obtaining the relevant clinical information. It should be filed in the medical notes in chronological order with the other hand-written notes. All fields should be completed. If information is not available (e.g. because the patient is unconscious, this should be recorded and the information recorded by the responsible medical staff when this becomes available.

It is the responsibility of the doctor who clerks the patient to ensure that all necessary investigations are done and that the results are chased

up when necessary and acted upon. This includes appropriate hand over of these responsibilities when going off shift. The doctor must request additional investigations if these are clinically indicated, e.g. blood gases. Note that chest X-rays are not usually required in poisoned patients unless there is a particular clinical indication, e.g. breathlessness, tachypnoea or suspected aspiration pneumonia. Results of investigations should be entered in the care pathway as soon as they are obtained. It is particularly important to record the times that blood samples were taken, since this is critical for interpretation.

For patients with self harm, evidence of ongoing or active suicidal thinking should always be sought during clinical assessment and documented clearly. Use of the Beck Suicide Intent Score (Appendix 8) may be useful. There is also a Mental Health Assessment Form used in the A&E Department that may be adapted for use in the AS (Appendix 9)

#### **2.2.4 Role of consultant medical staff in the AS**

Patients with poisoning or drug overdose admitted to the AS initially come under the care of the consultant physician responsible for medical admissions. They should be reviewed by the consultant in the same way as other medical admissions; there is a section of the admission proforma for this consultant assessment to be recorded. This usually means that patients admitted during the daytime and early evening on weekdays or at any time on weekends or public holidays will be reviewed by an acute medicine consultant.

At 9.00 a.m. on normal working days there is a toxicology Ward round performed by a consultant clinical toxicologist at which all toxicology patients in the hospital are reviewed. For patients admitted overnight, this will serve as the post take Ward round and there is no need for these patients to be reviewed also by the consultant physician responsible for medical admissions overnight. Patients for review on the toxicology Ward round should be indicated as 'tox' on the AS whiteboards so that it is clear who is responsible for the morning consultant review.

Patients who need specialist toxicology input at other times during normal working hours can be referred to the toxicology team. Outside normal working hours responsibility reverts to the on call medical consultant, but specialist consultant advice can be obtained on a 24/7 basis from the national consultant rota provided by the National Poisons Information Service, to which all Newcastle clinical toxicologists contribute sessions.

#### **2.2.5. Criteria for admission**

Current department of Health Guidelines recommend that all patients with drug overdose should be admitted. However, admission may not be necessary following small overdoses / minor self injury provided a

formal psychiatric risk assessment has taken place. Such an assessment should be done by a member of staff who has received appropriate training and should include the following:

- Assessment of level of suicidal intent and any ongoing suicidal thoughts
- Documentation of current mental state and outlook
- Assessment of the level of social support
- Documentation of lack of major mental illness
- Ensuring accessibility of appropriate community follow up

**Patients over 65 years old with self harm or drug overdose should always be admitted as there is a high prevalence of psychiatric disease and risk of completed suicide.**

### **2.3 Transfer from the AS**

Patients who are likely to stay in hospital for more than a few hours are suitable for transfer out of AS to the appropriate RVI specialist base Ward, which is Ward 30. AS and Ward 30 are the two appropriate environments for managing patients at risk of further self harm as they have undergone structural adaptation to reduce risks from further attempted self harm episodes. Transfers should occur as soon as possible so as to reduce the occupancy of AS beds.

It is the responsibility of the AS medical staff to ensure that outstanding results on poisoned patients are chased up and acted on appropriately when this is indicated and that appropriate hand over of patients to the medical staff taking on responsibility has taken place.

### **2.4 Routine Observations**

#### **2.4.1 Admission observations**

All patients should have the following performed on admission to AS and these should be recorded in their care pathway, together with the time that the observations were made.

- Pulse
- BP
- Temperature
- Respiratory rate
- GCS
- Oxygen saturation
- MEWS Score

#### **2.4.2 Further observations**

***i) All patients:*** A standard AS observation chart should be started and the following should be taken *at least* every 30 minutes until the patient been assessed by a doctor. Patients who are judged to be stable can then revert to 4 hourly observations, unless alternative instructions are

given. It is the responsibility of the medical team to give clear instructions about the frequency and type of observations needed.

- pulse
- blood pressure

**ii) Patients with potential respiratory compromise**, e.g. reduced level of consciousness, reduced oxygen saturation or reduced respiratory rate on admission should have the following performed half-hourly initially, and continued until they are consistently within the normal range.

- Oxygen saturation
- Respiratory rate
- Neurological observations including GCS, pupil size and response to light

**iii) Patients at risk of cardiac arrhythmia**, e.g. who have taken cardiotoxic drugs, those who have documented arrhythmias, symptoms suggesting arrhythmia or an abnormal 12 lead ECG should be placed on a cardiac monitor until they have been free from observed arrhythmias for 12 hours (Appendix 3).

Observations should start in the AS and continue when the patient is transferred to any other Ward. The same standard policies for use of Modified Early Warning scores (MEWS) apply to clinical toxicology patients as to other acute medical admissions.

### **3 Management on Ward 30**

**It is important that as many patients as possible should be managed in the AS or Ward 30 because:**

- These Wards have been adapted to be the safest environments for deliberate self harm patients in the hospital.
- It helps with the work of the Liaison Psychiatry Team
- The nursing staff have additional training/experience in the care of patients with poisoning and deliberate self-harm

#### **3.1 Source of patients admitted to Ward 30**

##### **i) Transfers from the AS**

All patients who are not likely to be discharged within a few hours should be transferred from AS to Ward 30 as soon as possible.

##### **ii) Transfers from other Wards in the Trust, e.g. ITUs**

These will usually take place between 8.00 a.m. and 10.00 p.m. and should be direct transfers to Ward 30, RVI. If there are no beds on Ward 30, a stable patient can be boarded out to receive the transfer. It is usually appropriate for patients from ITUs to be admitted to Ward 30 when sufficiently stable.

These transfers should be agreed in advance with the consultant/registrars responsible for acute medicine. The doctor accepting the patient will be responsible for liaising with the bed bureau, the RMO and the Ward to arrange an appropriate bed and will assume responsibility for the patient on their arrival on the Ward.

**Patients transferred to Ward 30 out of hours remain the responsibility of the RMO and admitting consultant until the start of the next normal working day when consultant responsibility is transferred to one of the consultant clinical toxicologists. Junior medical cover is provided by the doctors covering that Ward.**

Patients on Ward 30 are admitted under the consultant care of a clinical toxicologist (Prof Thomas, Dr Thanacoody, Dr Hill). Daytime junior medical staff support is from the Ward 30 team.

**iii) Regional referrals**

Regional referrals are uncommon. Patients referred for transfer from other trusts in the Region should be discussed with the RMO, who should liaise with one of the consultant clinical toxicologists during normal working hours or the admitting consultant physician at other times. The person accepting the patient will be responsible for liaising with the bed bureau and the AS to arrange an appropriate bed and the medical staff who will be responsible for reviewing the patient. The clinical toxicology team will assume responsibility for the patient on the next working day.

**3.2 Ward Nursing Arrangements**

On arrival on Ward 30 a brief nursing assessment should be performed (or any earlier assessment reviewed) and recorded in the multi-disciplinary care pathway. Observations started in AS or elsewhere should be continued.

**3.2.1 Smoking**

Many drug overdose patients are smokers and it should be recognised that restriction of smoking may aggravate behavioural problems and/or precipitate self-discharge. There are no facilities within the Trust buildings for patients to smoke and patients would need to go outside to do this. For many patients at risk of self-harm, as well as patients sufficiently ill to require ongoing inpatient monitoring or treatment, it would be inappropriate for them to go outside the hospital unaccompanied.

Nicotine replacement therapy is available for use by patients within the Trust and can be offered on a temporary basis for patients to help them with tobacco cravings while they are inpatients (see 'Protocol for the administration of nicotine replacement therapy (NRT) for all hospital patients'). Briefly, patients suffering acute nicotine withdrawal can be prescribed NRT using a prescription that states that the NRT is to cover a period of acute nicotine withdrawal. No NRT should be given on discharge.

As a general rule, a member of staff should accompany patients who wish to leave the Ward to have a cigarette. The staff member should be of sufficient experience to ensure that the patient remains safe while off the Ward, both from the point of view of their medical condition and treatment and the risk of further self-harm. The patient should be off the Ward for the shortest period possible.

Patients should only be allowed to leave the Ward unaccompanied when a doctor or senior nurse has considered the individual's circumstances and determined that the risk of medical complications or further self-harm is negligible. This decision should be recorded in the care pathway.

Patients who leave the Ward without the knowledge or against the advice of medical and nursing staff will be deemed to have taken their own discharge (see below). The admitting nurse should explain this to all patients when they are admitted to the Ward.

### **3.2.2 Opioid dependence**

A small but important minority of overdose/poisoned patients are regular users of opioids such as heroin. It is not appropriate for these patients to embark on detoxification regimes during this acute medical admission. However, patients who require prolonged admission to hospital (>24 h) because of their medical problems may have a legitimate need for appropriate pharmacological management of their drug dependence.

For patients who are already receiving methadone or other agents (including buprenorphine or naltrexone) in the community, it is appropriate to continue their usual prescription and dose provided there is no medical contraindication (e.g. opiate overdose). Their usual prescription should be verified with their original prescriber as soon as possible.

The prescription of methadone to patients who are not receiving methadone in the community should be avoided if at all possible and should only occur with the authorisation of a consultant. Most of these patients can be managed with less potent opioids, e.g. dihydrocodeine.

Methadone and other related drugs should never be given to patients to take home and should never be prescribed to patients with ongoing features of opiate intoxication. Patients being prescribed methadone and related products should be told that the drug is given on the following conditions which should be accepted by them in writing.

The patient may undergo urinary toxicology screening before and at intervals during treatment to ensure that there is no concomitant consumption of illicit drugs. Patients who use illicitly-obtained drugs while inpatients will be discharged.

Patients must remain on the Ward unless accompanied by a member of hospital staff

Patients will abide by the normal rules of the Ward and will not use any sort of threatening or violent behaviour or foul or abusive language.

Patients will co-operate with any reasonable treatment for their medical condition

In return Ward staff will treat the patient with courtesy and respect, maintaining their dignity and privacy, as far as the law allows.

### **3.2.3 Alcohol-related problems**

Chronic excess alcohol consumption is common amongst people presenting with drug overdose and it is important to identify and assess potentially harmful drinking. Patients should be asked about alcohol use as prompted by the clinical toxicology multidisciplinary care pathway and more detailed assessment made should there be a suspicion of alcohol misuse. The AUDIT questionnaire, detailed in Trust guidelines (*Trust protocol for the detection of alcohol misusers*) and advocated in NICE Clinical Guideline 115 (*Diagnosis, assessment and management of harmful drinking and alcohol dependence*) may be used for this purpose.

Trust guidance should also be followed for prevention of withdrawal and of Wernicke's encephalopathy.

Patients with alcohol or drug related issues should be referred to the Nurse Specialist, Substance Misuse (DECT 29586) who will ensure that an appropriate detoxification regime, including vitamin supplementation, is in place. For those patients with self harm, longer term issues are considered by the liaison psychiatry team in the first instance.

### **3.3 Ongoing Medical Responsibility**

Patients admitted to the AS remain the responsibility of the medical consultant responsible for the AS until 9.00 a.m. on the next working day. At weekends, they remain the responsibility on the on call medical team until 9.00 a.m on the next working day, i.e. usually 9.00 a.m on Monday morning. When there is a clinical indication (i.e. severe or complex poisoning) telephone advice can be obtained from the National Poisons Information Service, from which consultant advice is available on a 24/7 basis (Tel 0844 892 0111).

Patients will be reviewed by the clinical toxicology team on a Ward round each weekday morning. This Ward round is lead by a consultant clinical toxicologist and a rota is available detailing which consultant is responsible. The consultant is assisted by an F1 or F2 doctor from Ward 30 who is responsible for ensuring that an accurate list of patients is available, including patients in Ward 30 and all ITUs and HDUs on the RVI site. To assist with this the patients should be marked as 'Tox' on the Ward whiteboards by AS staff

and labelled on e-record as clinical pharmacology speciality patients. Junior doctors from AS, especially those who have managed patients overnight, are encouraged to present their patients on this Ward round when possible.

Following the clinical toxicology Ward round consultant responsibility remains with the clinical toxicology consultant unless formally handed over to another team. Junior medical support is provided by the team covering the Ward where the patient is located, On AS between 9am and 5pm, this is the F1 doctor looking after patients in the bay that the patient is in.

#### **4. Management of Acutely Disturbed Patients**

Patients with drug overdose may be acutely disturbed because of an underlying psychiatric disease or personality disorder or because of psychosis induced by the drugs they have taken. Drugs which commonly cause disturbed behaviour include alcohol, tricyclic antidepressants, procyclidine, cocaine, amphetamines, ecstasy, mephedrone and other stimulants/hallucinogens. Psychosis may also be associated with heavy chronic cannabis use. Management can be difficult but the following may be helpful:

- Staff safety is a priority. Staff should ensure that they have a route of escape if needed (e.g. they should remain between patient and door). They should present a small target (side on). They should not attempt to tackle an escalating situation without adequate back-up.
- Staff should try to guide patient away from dangerous situations (other patients, objects) and into a safe place.
- Staff should call security at an early stage
- Staff should try to talk the patient down. They should remain calm and non-threatening and keep hands in view with open palms
- Restraint may be required and is permitted for patients lacking capacity, provided it is reasonable and proportionate. It should be carried out by staff with appropriate training
- Drug therapy may be needed in some cases. This should only be used if there is a strong indication since it may worsen features of poisoning, e.g. respiratory depression, cardiac arrhythmias. Reasonable drugs to use, either separately or in combination, are:

***Lorazepam 1-5 mg oral, i/v or i/m*** (only use i/m if i/v route unavailable)

***Haloperidol 5-10 mg i/m*** Consider also using procyclidine 5-10 mg i/m/ or 5 mg i/v to avoid extrapyramidal effects, especially if high doses of haloperidol are used). Avoid in patients at risk of arrhythmia

It is generally appropriate to start with low doses and titrate upwards as required, with appropriate monitoring and nursing supervision.

#### **5. Referral to the Mental Health Team**

All patients with self harm should be referred to the mental health team. For most patients it is appropriate to refer the morning after admission, once the patient is

adequately recovered from their overdose. On weekdays patients admitted through the AS and/or Ward 30 are reviewed automatically by the Liaison Psychiatry Team. At weekends or for urgent out of hours problems a referral must be made to the appropriate duty psychiatrist, depending on the place of residence of the patient:

<b>City sector</b>	<b>Examples</b>	<b>Duty psychiatrist at</b>
Western	Scotswood, Fenham	Newcastle General Hospital
Eastern	Byker, Heaton, Walker	RVI
Northern	Gosforth, Fawdon, North Kenton	St Nicholas' Hospital
Homeless / out of area		St Nicholas' Hospital

**(If in doubt call the duty psychiatrist at St Nicholas' Hospital with the patients address / postcode.)**

**There is an AE Mental Health Assessment pro-forma - (Appendix 9)**

## **6 Discharge Arrangements**

Patients with **deliberate** drug overdose should only be discharged provided

- a) They are medically fit for discharge
- b) They have undergone a risk assessment by the Liaison Psychiatry Team or a psychiatrist, or the RMO, AS SpR or consultant (if they have undergone appropriate training)

All patients who have taken an *intentional* drug overdose *must* have a formal risk assessment performed before they are discharged from hospital. This includes patients being discharged from the AS (see section 1.2.3). Risk assessment must be performed by a doctor or nurse who has received appropriate training. The Beck Suicide Score (Appendix 8) may be used with the caveat that NICE recommends patients should not be discharged based solely on a low BECK score if no follow up is in place..

During normal working hours risk assessment and support for medical staff in these circumstances can be obtained from the Liaison Psychiatry Team (LPT). Out of hours, appropriately trained RMOs or nursing staff must do a risk assessment before patients are discharged. Advice or an opinion can be sought from the Duty Psychiatrist at St Nicholas' Hospital if necessary.

Patients who are low medical and psychiatric risk and who do not have important associated psychiatric disease can be discharged, provided appropriate follow up arrangements are made with the Liaison Psychiatry Team. The GP must be informed.

Patients at moderate or high medical or psychiatric risk should be offered admission to hospital for review by the Liaison Psychiatry Team or Psychiatrist the following day, or whenever they are sufficiently recovered from their medical problems.

Patients at low medical risk who have psychiatric problems may require urgent psychiatric assessment if their mental health needs outweigh their medical needs.

### **6.1. Patients Attempting To Take Their Own Discharge**

In law there is a presumption of capacity. Patients who retain mental capacity have the right to leave hospital if they wish. It is important that the risks of such action are explained to them and they should be asked to sign a self-discharge form. If they decline to do this a detailed record of the circumstances should be made in the care pathway. Consideration should be given for a formal assessment of capacity specific to the decision the patient is being asked to make especially if there are significant risks to self. Consideration can also be given to use of MHA if there is a suspected mental illness.

Patients who do not have mental capacity, e.g. those who are intoxicated, confused, psychotic or who are unable to understand and weigh information (if significantly distressed or angry for example), may not be in a position to make a decision to leave hospital. Medical and nursing staff have a duty of care to the patient which includes keeping them in hospital if this is considered in their best interest. Advice should be sought from the responsible consultant physician. Assessing capacity is the treating clinician's responsibility, involving the duty psychiatrist if there is doubt or a second opinion is required. A decision that a patient does not have mental capacity should be fully documented and justified in the medical notes.

Staff should be aware that according to the Mental Capacity Act (2005), which came into force in April 2007

- a. a person is assumed to have capacity unless it is established that he/she does not
- b. a person should not be treated as unable to make a decision unless all practicable steps to help him/her have been taken without success
- c. a person should not be treated as unable to make a decision merely because he/she makes an unwise decision
- d. Acts done or decisions made under the Mental Capacity Act for or on behalf of a person who lacks capacity must be done or made in his/her best interest
- e. Before such acts / decisions are done /made, regard must be had as to whether the purpose for which it is needed can be effectively achieved in a way that is less restrictive of the persons rights and freedom of choice

Therefore, the following should be attempted in the cases of patients who attempt to take their own discharge following intentional self-harm.

#### **6.1.1 An assessment of mental capacity.**

According to the Mental Capacity Act, patients lacking capacity are

- a. unable to understand and retain information relevant to the decision they are being asked to make (e.g. details of the

- b. unable to retain that information
- c. unable to weigh up that information as part of a process of making a decision,  
**or**
- d. unable to communicate their decision

These questions need to be decided on the *balance of probabilities*.

Note that an assessment of capacity is valid for a specific question at that point in time. Regular re-assessment is needed.

**6.1.2 An assessment of the clinical risk** from the overdose and the likely impact of treatment.

Use of the information sources detailed below in Section 5 is helpful in determining risk.

**6.1.3 An assessment of the mental state** of the patient and the degree of risk of suicide.

This should be done by a doctor or nurse with appropriate training in risk assessment. During normal working hours this may be done by the Liaison Psychiatry Team. Out of hours this will be done by appropriately trained nurses and the on call medical team, with support from the on-call psychiatrist.

Following these assessments patients will fall into one of the following broad categories:

**A. Patients with mental capacity, without evidence of mental illness, who have a low risk of suicide and who are not at risk from their overdose** are entitled to refuse admission to hospital and can be allowed to take their own discharge. A crisis card and an appointment with the Liaison Psychiatry Team should be offered if this was a self-harm episode and the GP should be informed as soon as possible. It is sometimes possible to involve the liaison psychiatry team before the patient leaves hospital.

**B. Patients at clinical risk or at risk of suicide who DO NOT have mental capacity.** These should be kept in hospital for treatment and can be restrained under common law if necessary. Remember that mental capacity is often impaired temporarily in patients with drug toxicity, e.g. with sedative agents. The judgement that a patient does not have mental capacity should be made by 2 doctors (neither F1) and justified in writing in the patient's notes. A senior doctor, either a consultant or SpR with designated authority from a consultant, should be involved in the decision. It is also usually appropriate to involve the Liaison Psychiatry Team or the on call psychiatrist in the decision.

**C. Patients who have mental capacity but in whom mental illness is suspected, including patients at high risk of suicide.** It may be appropriate to detain these patients using the Mental Health Act. The advice of a psychiatrist should be sought at an early stage. Section 5(2) of the Mental Health Act allows a medical practitioner to detain a patient *who has already been admitted* until a psychiatric assessment can be obtained. The appropriate forms, which are kept in the AS, must be completed at the time and submitted to the hospital management.

**D. Patients with mental capacity, without evidence of mental illness, who have a low risk of suicide but who are at risk from their overdose** are a difficult group to deal with. In law, they are entitled to refuse admission to hospital and treatment. However, all steps should be taken to dissuade them from taking their own discharge. Advice of a senior physician and/or psychiatrist should be sought. If these patients do take their own discharge, detailed records of events should be made so that staff can demonstrate that all reasonable and legal steps were taken to persuade the patient to have treatment. Patients should be asked to sign a statement in their medical notes that they have understood the risks involved in leaving the hospital without treatment. Their signature should be witnessed by a member of staff.

N.B. Patients under 18 years of age can be treated without their consent if a parent has consented to treatment. The law allows children who are mentally competent to have treatment against their parents' wishes but does not allow the refusal of treatment in these circumstances.

## **6.2 Absconding patients**

The management of patients who abscond, i.e. leave the hospital without the knowledge of hospital staff, depends on the risk to the patient from their mental and physical state. It is not possible to assess mental capacity under these circumstances. If there is high risk to the patient reasonable steps should be taken to return the patient to the Ward. Hospital security should be alerted to search the hospital and grounds. Subsequently the police should be contacted to visit the patient at home, although they have limited powers to return patients to hospital. Advice of the responsible consultant should be sought when there is uncertainty about the appropriate response.

On a case by case basis The Liaison Psychiatry Team can be contacted – it may be possible to offer out-patient follow-up if the patient has previously consented.

## **6.3 Discharge Summaries**

As with all other medical discharges, toxicology patients need an INTIME discharge summary completed and finalised on discharge from hospital. INTIME summaries are also needed for patients who abscond or take their own discharge or who die or who are transferred to other hospital trusts (but not for those transferred elsewhere within this Trust). The responsibility for doing the summary rests as follows:

- a. Patients on AS. The INTIME summary should be done by the Doctor making the final decision on discharge. This will be:
  - i) the Ward 30 Toxicology F1/F2 if the patient is discharged on the Toxicology post take Ward round
  - ii) The F1/F2 doctor responsible for the bay that the patient is at other times.
- b. Patients on Ward 30. The INTIME summary should be done Ward 30 as follows:
  - i) During usual working hours - the Ward 30 Toxicology F1/F2.
  - ii) At other times - the F1/F2 covering Ward 30

INTIME summaries should be finalised and printed before the patient leaves the Ward.

## 7. Information Available to Staff

There are three major sources of information that medical and nursing staff can use in guiding their management of poisoned patients.

### 7.1 TOXBASE

This is the computer programme of the National Poisons Information Service. It has entries on over 14,000 substances. It is available via the NHS Net and can be accessed in the AS, Ward 43 and Ward 30, using 'Internet Explorer' and the 'National Poisons Information Service' favourite/bookmark. Doctors who wish to access this information on other terminals within the hospital must register to use the service and this can be done via the TOXBASE home page (<http://www.toxbase.org/>)

### 7.2 Clinical Toxicology Team

The clinical toxicology team can provide advice and if necessary review patients during normal working hours. This service is provided by the consultant who performed the toxicology Ward round that morning. Contact details are as follows:

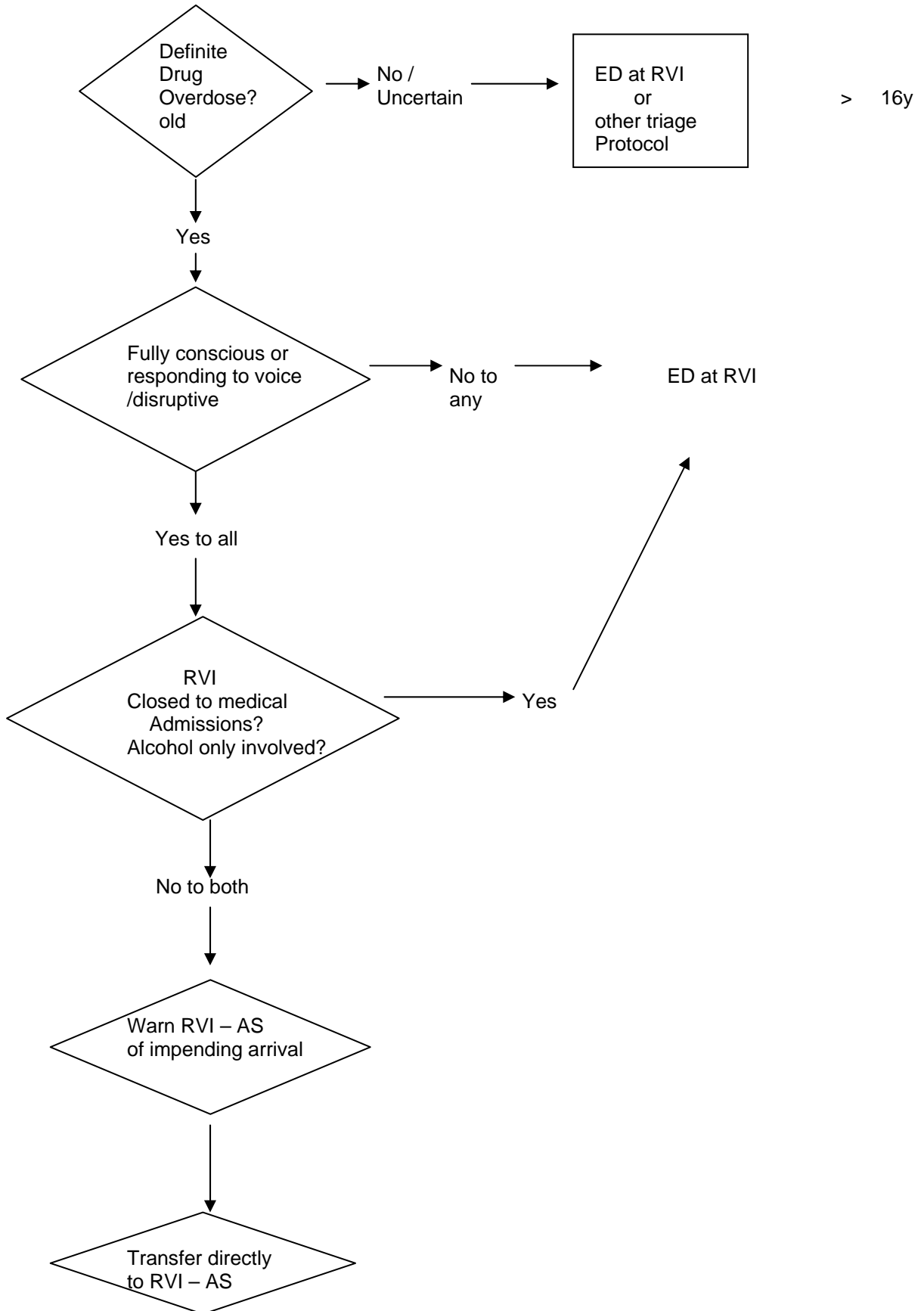
Name	DECT/Extension	Mobile
Prof Simon Thomas	24642, 20406	
Dr Ruben Thanacoody	0191 260 2182	
Dr Simon Hill	48612 / 26167	

### 7.3 National Poisons Information Service (NPIS)

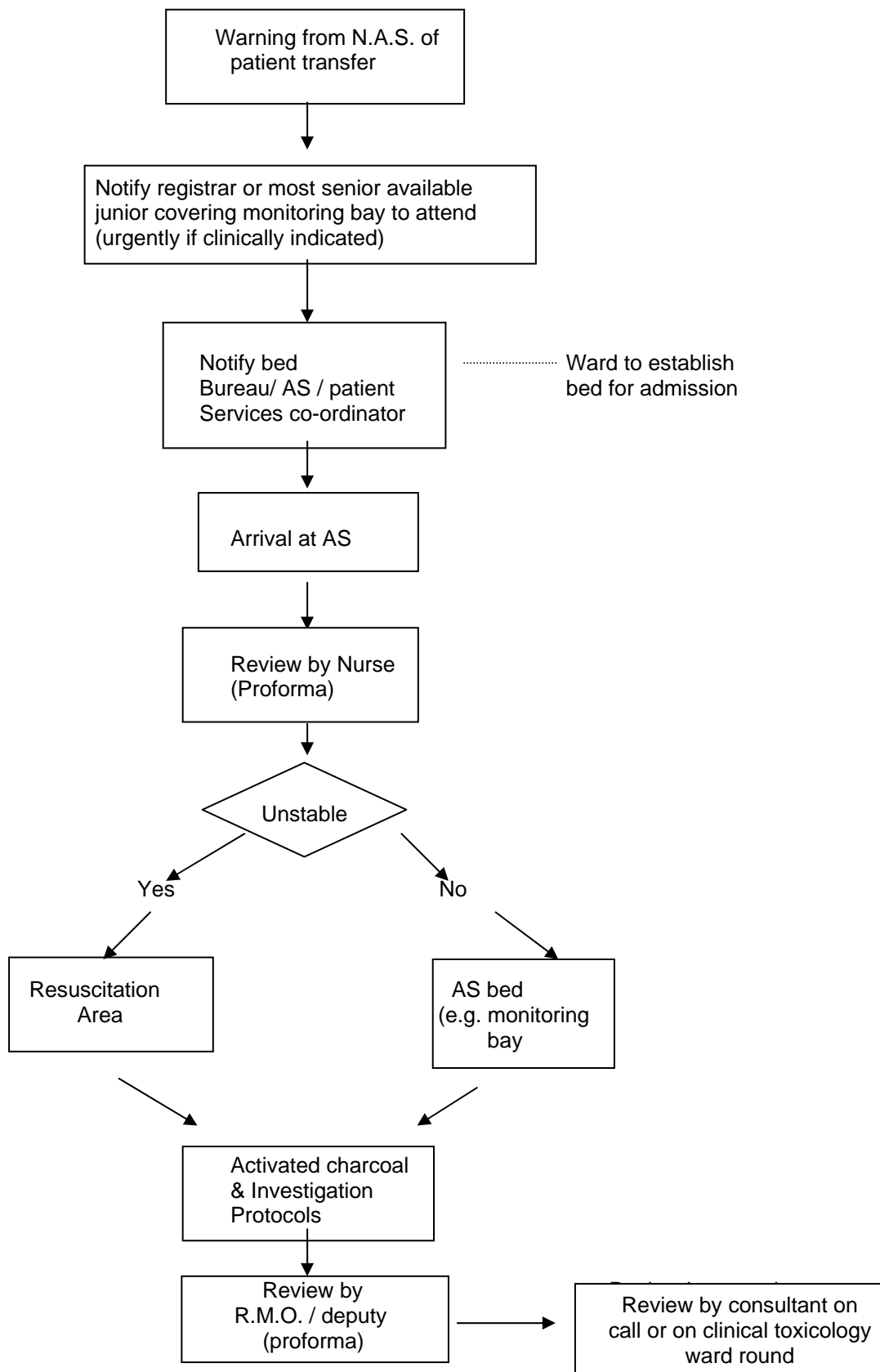
Poisons information is available 24 hours per day via NPIS which can be accessed by dialling 0844 892 0111. During normal working hours this usually connects the caller with the NPIS (Newcastle) Unit, part of the Regional Drug and Therapeutics Centre located on the RVI site. At times of high call volume or during out of hours periods enquiries may be directed to NPIS Units in Birmingham, Cardiff or Edinburgh. Calls are received by Poisons Information Specialists who may be pharmacologists, nurses, or pharmacists. Medical support up to consultant level is available 24 hours per day if this is required.

Author: SHL Thomas, 31 March 2011

AMBULANCE PARAMEDIC PROTOCOL FOR TRIAGE OF OVERDOSE PATIENTS



**AS PROTOCOL FOR TRIAGE OF OVERDOSE PATIENTS**



**MANAGING OVERDOSE WITH CARDIOTOXIC DRUGS****1 a) CARDIAC MONITORING PROTOCOL**

**All patients in the following categories should be placed on a cardiac monitor:**

- Patients with documented arrhythmias
- Patients with QRS duration > 120 ms
- Patients with QT<sub>c</sub> interval > 500 ms
- Patients with other ECG abnormalities
- Patients receiving intubation or with GCS < 9
- Patients exposed to significant amounts of the drugs in the cardiotoxic substance list (see above).

**NB this list is not exhaustive and monitoring may be requested for other patients on the instructions of medical staff).**

**Monitoring can be discontinued when:**

- The patient has been free from arrhythmia for **at least** 6 hours (preferably 12 hours)
- ECG normalised (if previously abnormal)

## B) CARDIOTOXIC SUBSTANCE LIST FOR NURSES / PARAMEDICS

N.B. This list is not comprehensive of cardiotoxic drugs and other substances. It includes those cardiotoxic substances that are most commonly taken in overdose. It is intended to alert nurses and other paramedical staff of commonly used drugs that are associated with a risk of cardiac arrhythmia or cardiac arrest. Entries in CAPITALS relate to drug groups. Use the BNF to identify individual agents. Entries in **bold** are the most common / important agents.

Patients taking these drugs should

- **Have a 12 lead ECG performed and looked at**
- **Be put on a cardiac monitor if significant amounts have been taken**

Drug	BNF Section	Toxicity
<b>Amphetamines</b>	<b>Illicit</b>	<b>Arrhythmias (VT/VF)</b>
<b>ANTIARRHYTHMIC DRUGS</b>	<b>2.3</b>	<b>Arrhythmias (Various types, see TOXBASE)</b>
<b>ANTIDEPRESSANTS, TRICYCLIC</b>	<b>4.3.1</b>	<b>Arrhythmias (QRS prolongation and VT/VF, QT prolongation and torsade), hypotension</b>
ANTIPSYCHOTIC DRUGS	4.2	Arrhythmias (QT prolongation and torsade), hypotension
BARBITURATES	4.1.3.	Hypotension, heart failure, <b>Arrhythmias (QRS prolongation and VT/VF)</b>
BETA-ADRENOCEPTOR BLOCKERS	2.4	Bradycardias, hypotension, heart failure
CALCIUM CHANNEL BLOCKERS	2.6.2	Hypotension, bradycardia, heart failure
Carbamazepine	4.8.1.	Arrhythmias (SVT, VT)
<b>CARDIAC GLYCOSIDES</b>	<b>2.1.1</b>	<b>Arrhythmias (tachycardia [SVT, VT] bradycardias or combination)</b>
Chloral hydrate / betaine	4.1.1.	Arrhythmias (QT prolongation and torsade)
Cisapride	1.2.	Arrhythmias (QT prolongation and torsade),
Citalopram	4.3.3.	Arrhythmias (QT prolongation and torsade),
<b>Cocaine</b>	<b>Illicit</b>	<b>Arrhythmias (VT, VF),</b>
<b>Coproxamol</b>	<b>4.7.1.</b>	<b>Arrhythmias (QRS prolongation and VT/VF)</b>
Cyanide	N/A	Arrhythmias, hypotension
DRUGS AFFECTING R-A SYSTEM / ANTIHYPERTENSIVES	2.5	Hypotension
Ecstasy	Illicit	Arrhythmias (VT/VF)
Halofantrine	5.4.1	Arrhythmias (QT prolongation and torsade)
Isopropyl alcohol	N/A	Arrhythmias (VT/VF)
Lamotrigine	4.8.1.	Arrhythmias (SVT, VT)
NITRATES, POTASSIUM CHANNEL ACTIVATORS,	2.6.1 2.6.3	Hypotension
Organophosphates	N/A	Arrhythmias (QT prolongation and torsade)
Phenytoin	4.8.1.	Hypotension, arrhythmias (QRS prolongation and VT/VF)
Quinine	5.4.1.	Arrhythmias (QT prolongation and torsade)
Terfenadine	3.4.1.	Arrhythmias (VT/VF)
Theophylline	3.1.3.	Arrhythmias (VT/VF)

VF – ventricular fibrillation  
 VT – ventricular tachycardia  
 Torsade – torsade de pointes type of VT

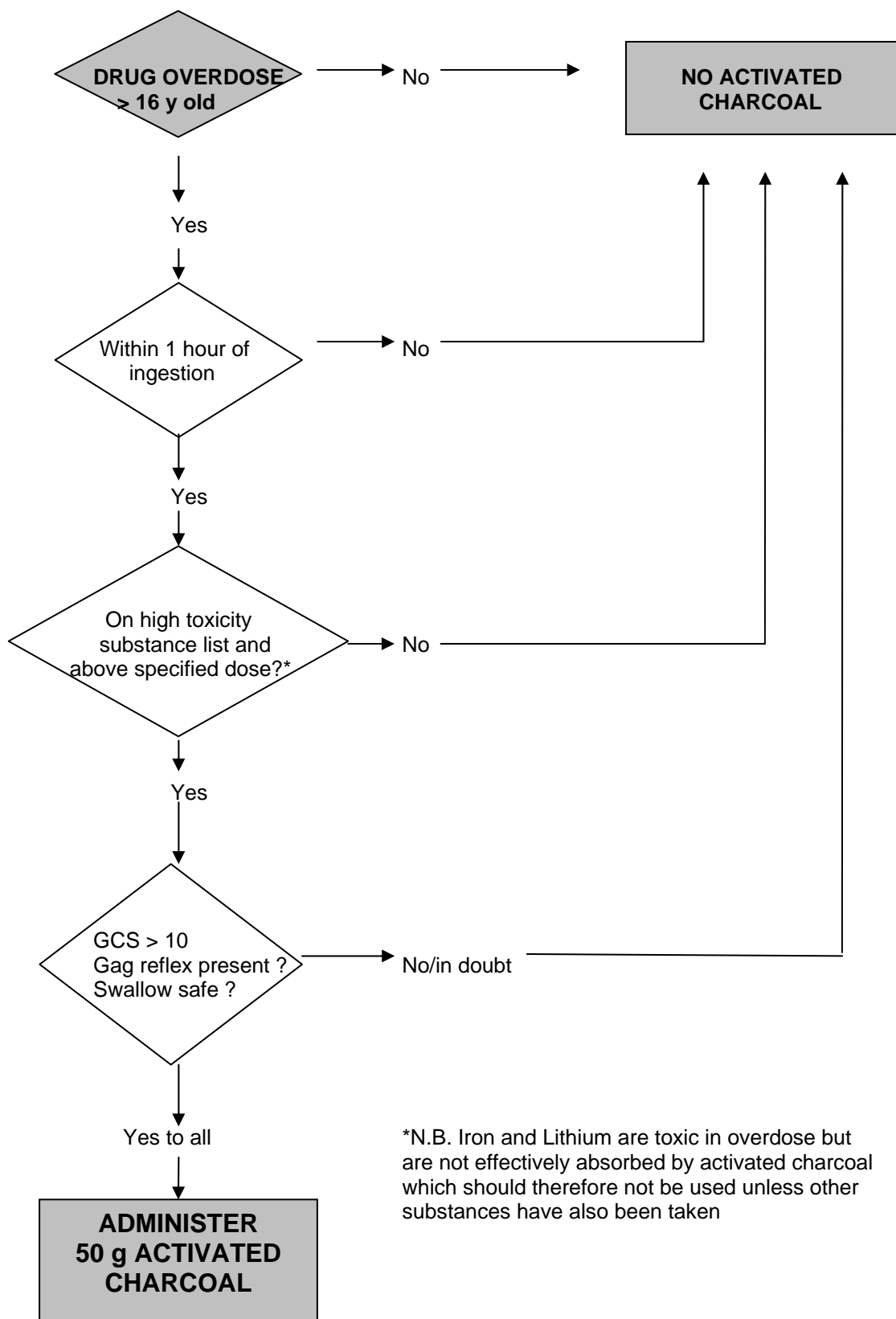
### HIGH TOXICITY SUBSTANCE LIST (ADULTS)

This is a list of substances and doses that may produce clinical toxicity in adults. It is not intended to be comprehensive but is designed to be used in conjunction with the Activated Charcoal protocol (Appendix 5). For details on other agents consult TOXBASE.

Drug	Dose for Activated Charcoal
Amlodipine*	0.4 mg/kg
Amphetamines	Any amount
Aspirin / Salicylate	150 mg / kg
Atenolol*	5 mg/kg
Bisoprolol*	7 mg/kg
Carbamazepine	>20 mg / kg
Carvedilol*	2.5 mg/kg
Celiprolol*	14 mg/kg
Co-proxamol	10 tablets
Cocaine	Any amount
Codeine	> 1 kg
Dihydrocodeine	> 500 mg
Diazepam	1 mg / kg
Digoxin	4 mg
Diltiazem*	10 mg/kg
Lofepramine	3.5 g
NSAIDs except mefenamic acid	> 10 x usual therapeutic dose
Mefenamic acid	> 2 g
Morphine	> 100 mg
Nifedipine*	2 mg/kg
Paracetamol	12 g (7.5 g for high risk patients)
Paraquat	Any amount
Phenytoin	> 20 g
Propranolol*	5 mg/kg
Fluphenazine	> 25 mg / kg
Quinidine	Any amount
Fluoxetine	1.5 g
Fluvoxamine	3 g
Sertraline	3.6 g
Sodium Valproate	> 5 g
Paroxetine	1.2 g
Theophylline	3 g
Thioridazine	> 25 mg / kg
Tricyclic antidepressants (except lofepramine)	500 mg
Verapamil*	10 mg/kg

For other \*beta blockers or \*calcium channel blockers - see table in TOXBASE

**ACTIVATED CHARCOAL ADMINISTRATION BY NURSES - PROTOCOL (ADULTS)**



**INVESTIGATIONS FOR PATIENTS WITH DRUG OVERDOSE - NURSE PROTOCOL**

The following investigations should usually be done by EAS nursing staff

**(A) BEDSIDE INVESTIGATIONS**

Investigation	Patient Group
ECG	All patients
O <sub>2</sub> Saturation	All patients

**(B) LABORATORY BLOODS**

Investigation	Patient Group	Blood Bottle	Lab
FBC	All	Pink	Haematology
U/E, bicarbonate, creatinine, liver function	All	Gold	Biochemistry
Paracetamol conc*	All	Gold	Biochemistry
Lithium conc*	Suspected Poisoning with lithium only	White	Biochemistry
Theophylline conc*	Suspected poisoning with theophylline only	White	Biochemistry
Iron / TIBC conc*	Suspected iron poisoning only	Gold	Biochemistry
INR or PT	Paracetamol, aspirin, NSAIDs	Purple	Haematology

\* Wait until 4 hours have elapsed since poisoning before measuring drug concentrations (2 h for symptomatic patients with salicylate overdose).

**CRITERIA FOR USE OF INTRAVENOUS CANNULAE**







The following groups of patients with drug overdose or poisoning should have i/v cannulae inserted

- Cardiovascular instability (BP < 100 systolic, Pulse > 110)
- Documented arrhythmia
- Abnormal 12 lead ECG
- GCS < 10
- Cardiotoxic substance (Appendix 3)
- Need for i/v antidotes, e.g. acetylcysteine for paracetamol or naloxone for opiate intoxication
- Protracted vomiting

**BECK SUICIDE SCORES**

<b>1</b>	<b>Suicidal attempt</b>	<b>9</b>	<b>Degree of premeditation</b>
0	Someone present	0	None – impulsive
1	Someone nearby or in visual or vocal contact	1	Contemplated for three hours or less before attempt
2	No one nearby or in visual or vocal contact	2	Contemplated for more than three hours before attempt
<b>2</b>	<b>Timing</b>	<b>10</b>	<b>Reaction to act</b>
0	Intervention probable	0	Glad he had recovered
1	Intervention unlikely	1	Uncertain whether glad or sorry
2	Intervention highly unlikely	2	Sorry he has recovered
<b>3</b>	<b>Precautions against discovery / interruption</b>	<b>11</b>	<b>Concept of medical rescuability</b>
0	No precautions	0	Thought that death would be unlikely with medical attention
1	Passive precautions (avoiding others but doing nothing to prevent their intervention)	1	Was uncertain whether death could be averted by medical intervention
2	Active precautions (locked room)	2	Was uncertain of death even with medical attention
<b>4</b>	<b>Attempting to gain help before or after attempt</b>	<b>12</b>	<b>Would death have occurred without medical intervention</b>
0	Notifying potential helpers re the attempt	0	No
1	Contacted but did not specifically notify potential helper re attempt	1	Uncertain
2	Did not contact or notify potential helper	2	Yes
<b>5</b>	<b>Final acts in anticipation of death</b>	<b>SCORE</b>	
0	None	0 – 3	Low risk
1	Thought about/made some arrangements	4 – 10	Moderate risk
2	Definite plans made (insurance, Will)	11+	High risk
<b>6</b>	<b>Suicide note</b>		
0	Absence of note		
1	Note thought about/torn up		
2	Presence of note		
<b>7</b>	<b>Conception of methods of liability</b>		
0	Did less to self than thought would be lethal		
1	Was unsure if act would be lethal		
2	Equalled or exceeded what he thought would be lethal		
<b>8</b>	<b>Seriousness of attempt</b>		
0	Did not seriously attempt to end life		
1	Uncertain about seriousness to end life		
2	Seriously attempted to end life		



<ul style="list-style-type: none"> <li>• Is the person behaving inappropriately to the situation?</li> </ul>		
<ul style="list-style-type: none"> <li>• Is the person quiet and withdrawn?</li> </ul>		
<ul style="list-style-type: none"> <li>• Is the person attentive and co-operative?</li> </ul>		
<p>2. Appearance and behaviour (continued)          If yes to any of the above, record details below:</p>		
<p>3. Issues explored through brief questioning</p>		
<ul style="list-style-type: none"> <li>• Why is the person presenting now? Give details below:</li> </ul>		
<ul style="list-style-type: none"> <li>• What recent event(s) precipitated or triggered this presentation? Give details below:</li> </ul>		
<ul style="list-style-type: none"> <li>• What is the person's level of social support and status (ie: employment and housing status, partner/significant other, family members, friends)?            Give brief details below:</li> </ul>		

**4. Suicide risk screen - greater number of positive responses suggests greater level of risk**

	yes	no	d/k		yes	no	d/k
Previous self-harm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Family history of suicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Previous use of violent methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unemployed/retired	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suicide plan/expressed intent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Male gender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Current suicidal thoughts/ideation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Separated/widowed/divorced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hopelessness/helplessness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lack of social support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Depression	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Family concerned about risk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Evidence of psychosis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Disengaged from services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alcohol and/or drug misuse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Poor adherence to psychiatric Tx	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chronic physical illness/pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Access to lethal means of harm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Patient Description:**



Mental Health Assessment Risk Assessment Matrix			
Level of risk	Key risk factors	Action	Timescale
Low Risk	<ul style="list-style-type: none"> <li>Minor mental health problems may be present but no thoughts or plans regarding risk behaviours to self or others, or unlikely to act upon them;</li> <li>No evidence of immediate or short term risk or vulnerability.</li> </ul>	<ul style="list-style-type: none"> <li>Treatment and follow up arrangements managed by A&amp;E team.</li> <li>Possible referral to primary care services e.g. GP or practice nurse;</li> <li>May benefit from mental health advice e.g. safe alcohol consumption or non statutory counselling services.</li> </ul>	<ul style="list-style-type: none"> <li>Referral to Psychiatry team not necessary.</li> <li>Advice on further referral and/or management may be sought from Liaison Psychiatry Service or CATS.</li> </ul>
Medium Risk	<ul style="list-style-type: none"> <li>Mental health problems present and/or has non specific ideas or plans regarding risk behaviours to self or others.</li> <li>These either not dangerous or no plans to act upon them.</li> <li>Potentially vulnerable in certain circumstances.</li> </ul>	<ul style="list-style-type: none"> <li>Should have specialist mental health assessment but no further action required if patient doesn't wish to engage.</li> <li>Should be advised to seek further help if necessary e.g. from GP.</li> <li>CATS and GP to be informed as well as mental health services if already known.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion with CATS to determine action plan.</li> <li>If minor SH consider referral to Liaison Psychiatry for follow-up.</li> </ul>
High Risk	<ul style="list-style-type: none"> <li>Serious mental health problems present, including possible psychotic features;</li> <li>And/or has clear ideas or plans regarding risk behaviours to self or others.</li> <li>May have already self harmed.</li> <li>Mental state may deteriorate if left untreated and potentially vulnerable.</li> </ul>	<ul style="list-style-type: none"> <li>Urgent mental health assessment required and an action plan to be drawn up to address immediate and short term risk factors.</li> <li>Key clinicians/others likely to be involved should be informed.</li> <li>Psychiatry assessment required before discharge can occur.</li> </ul>	<ul style="list-style-type: none"> <li>In hours, urgent referral to Liaison Psychiatry team if person has self-harmed to enable person to be seen within 1 hour of arrival.</li> <li>Out of hours – refer to CATS.</li> <li>Attempts should be made to stop patient leaving department before mental health assessment.</li> <li>Police to be informed if patient absconds.</li> </ul>
Very High Risk	<ul style="list-style-type: none"> <li>Serious mental health problems present, including possible psychotic features;</li> <li>And/or has strong and immediate plans or ideas regarding risk behaviours to self or others.</li> <li>May have already self harmed.</li> <li>Mental state likely to deteriorate if left untreated.</li> <li>Almost certainly vulnerable.</li> </ul>	<ul style="list-style-type: none"> <li>Immediate action needed, including urgent mental health assessment.</li> <li>Action plan addressing immediate and short term risk factors, including an ongoing treatment and care package.</li> <li>If patient is not willing to engage, a Mental Health Act assessment should be arranged before person leaves the Department.</li> </ul>	<ul style="list-style-type: none"> <li>If SH in hours- referral to Liaison Psychiatry team.</li> <li>Out of hours referral to CATS.</li> <li>Attempts should be made to stop patient leaving department before mental health assessment.</li> <li>Police to be informed if patient absconds.</li> <li>If patient brought in by Police on S136 Mental Health Act contact SPOC on arrival</li> </ul>

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**THE NEWCASTLE UPON TYNE HOSPITALS NHS FOUNDATION TRUST**  
**IMPACT ASSESSMENT – SCREENING FORM A**

This form must be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval.

Policy Title:	<b>Management Of Poisoning And Drug Overdose In The Royal Victoria Infirmary</b>	Policy Author:	S Thomas
		Yes/No?	You must provide evidence to support your response:
1.	Does the policy/guidance affect one group less or more favourably than another on the basis of the following: (* denotes protected characteristics under the Equality Act 2010)		
	• Race *	No	Cultural, religious and other factors are considered in section 2.2.1 which is consistent with current NICE guidance
	• Ethnic origins (including gypsies and travellers)	No	
	• Nationality	No	
	• Gender *	No	
	• Culture	No	
	• Religion or belief *	No	
	• Sexual orientation including lesbian, gay and bisexual people *	No	
	• Age *	No	
	• Disability – learning difficulties, physical disability, sensory impairment and mental health problems *	No	
	• Gender reassignment *	No	
	• Marriage and civil partnership *	No	
2.	Is there any evidence that some groups are affected differently?	No	
3.	If you have identified potential discrimination which can include associative discrimination i.e. direct discrimination against someone because they associate with another person who possesses a protected characteristic, are any exceptions valid, legal and/or justifiable?	n/a	
4(a).	Is the impact of the policy/guidance likely to be negative? <i>(If “yes”, please answer sections 4(b) to 4(d)).</i>	no	These issues are not affected by the guidance
4(b).	If so can the impact be avoided?	n/a	
4(c).	What alternatives are there to achieving the policy/guidance without the impact?	n/a	
4(d).	Can we reduce the impact by taking different action?	n/a	

<b>Comments:</b> None	<b>Action Plan due (or Not Applicable):</b> n/a
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Name and Designation of Person responsible for completion of this form: ..... S Thomas ..... Date: ... 29 mar 11 .....

Names & Designations of those involved in the impact assessment screening process: ..... S Thomas, N Thompson, R Thanacoody, S Hill .....

(If any reader of this procedural document identifies a potential discriminatory impact that has not been identified on this form, please refer to the Policy Author identified above, together with any suggestions for the actions required to avoid/reduce this impact.)

*For advice on answering the above questions please contact Frances Blackburn, Head of Nursing, Freeman/Walkergate, or, Christine Holland, Senior HR Manager. On completion this form must be forwarded electronically to Steven Stoker, Clinical Effectiveness Manager, (Ext. 24963) [steven.stoker@nuth.nhs.uk](mailto:steven.stoker@nuth.nhs.uk) together with the procedural document. If you have identified a potential discriminatory impact of this procedural document, please ensure that you arrange for a full consultation, with relevant stakeholders, to complete a Full Impact Assessment (Form B) and to develop an Action Plan to avoid/reduce this impact; both Form B and the Action Plan should also be sent electronically to Steven Stoker within six weeks of the completion of this form.*