# ASP-ESAA Early Antivenom in Australian Snakebite Project

# PROCEDURE

**AIM:** To investigate the effects of early antivenom administration in Australian snakebite.

**OBJECTIVE:** To prevent major clinical envenoming effects such as myotoxicity and neurotoxicity from occurring

**Inclusion Criterion** – **Presents within 2 hours of bite** and definite sighting of a snake by the patient or parent/carer of child (age > 2 years) with early symptoms suggesting envenoming (ie collapse OR two of vomiting, headache, or abdominal pain).

**Exclusion Criterion** – Definite bite by a non-venomous snake, death adder, mulga, or taipan; cardiac arrest; age <2 years.

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**PROCEDURE**

**Step 1** – At any time that blood is taken for routine care (FBC, COAGS/D-dimer, CUE, LFT, CK, LDH, BSL), take additional research blood- a plain/serum tube (colour varies between labs). Note on all request forms "Australian Snakebite Project".

**Step 2** - Collect initial bloods as per routine blood collection (see ASP laboratory protocol)

**Step 3**– Call an ASP investigator on 1800 676 944. We will fax the necessary paperwork to you (if this is not already to hand) and liaise with your pathology service.

**Step 4** – Obtain consent as soon as the patient's condition permits (or from next of kin) and immediately fax the completed Consent Form and Datasheet 1 to (**02) 4911 0501**.

**Step 5**– Start filling out remaining datasheets: Keep these with the patient's notes and continue recording relevant clinical data. Once completed fax to **(02) 4911 0501**

**Step 6** – Proceed based on inclusion criteria: **definite bite, <2h, systemic symptoms, age>2**

**IF Included:**

1. Contact investigator immediately on **1800 676 944** to obtain randomisation (Either early antivenom or standard care)

2. **If randomised to antivenom:**

→ Give one vial of brown snake and one vial of tiger snake antivenom immediately (Except for Tasmania give one vial of Tiger snake antivenom AND Northern WA give one vial of Brown snake antivenom) added to 200mL of Normal Saline and given over 20 min.
→ No further antivenom to be given unless there are exceptional circumstances (eg. Late diagnosis of taipan, mulga, death adder – consult with ASP)

3. If randomised to standard care:

→ Wait for laboratory results then give antivenom based on standard care and current snake bite guidelines

**IF Excluded:**

1. Standard care

2. Recruit to ASP observational study (See ASP Procedure)

3. Antivenom use as indicated (standard care & current guidelines)

**Step 7 -** **Do research bloods (serum) just prior to study vial administration.**

**AND**

| | |
|---|---|
| **At 6 hours post-bite take:** | **Routine + Research bloods + complete Datasheet 2** |
| **At 12 hours post-bite take:** | **Routine + Research bloods + complete Datasheet 2** |
| **At 18 hours post-bite take:** | **Routine + Research bloods + complete Datasheet 2** |
| **At 24 hours post-bite take:** | **Routine + Research bloods + complete Datasheet 2** |
| **Then every 12 hours until discharge** | **Routine + Research bloods + complete Datasheet 2** |

***Record sampling times on vials even if not at exactly required times***

**Step 8 -** If a reaction to AV occurs, call the Poison's Information Centre / Investigator and take additional samples as outlined on the adverse reaction datasheet (Datasheet 3).

**Step 9-** Patients should be observed for 24 hours post bite unless the CK is increasing, they develop neurotoxcity, have significant bleeding or develop renal impairment. All patients should be kept until any of these complications resolve or start resolving.

**Step 10 –** Fax all laboratory results and completed Datasheets 1-3 to **(02) 4911 0501**

**Step 11 –** Prior to patient discharge, please give the patient the discharge treatment plan (Datasheet **4**)

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**National Study Line (24 hours): 1800 676 944**

IF THIS FAILS then contact an Investigator directly: Dr Geoff Isbister **0438 66471**

**Fax number for submitting consent forms and datasheets: (02) 4911 0501**

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## Australian Snakebite Project (ASP)

## Guidelines for the management of anaphylaxis to antivenom

**(i) Preparation prior to commencing antivenom.**

a. We do not recommend routine premedication with antihistamines or steroids

b. Dedicate one small bore (18-20 G in adults) IV line to antivenom administration and one large bore IV line (16-14 G in adults) for emergency resuscitation.

c. Prepare 1L Normal Saline (20 ml/kg in children) ready to give under pressure.

d. Prepare adrenaline 1:1000 (1mg in 1 mL) drawn up to a dose of 0.01 mg/kg (max. 0.3 mg, i.e. max 0.3 mL) and label "adrenaline for IM. injection only (dose in mg)".

e. Prepare an i.v. infusion of adrenaline 1mg in 100 mL (controlled by infusion pump or syringe driver) ready to attach by a side arm to the resuscitation line. Anti-reflux valves must be attached above the side arm on any other infusions using this IV., to prevent adrenaline going back up into the other fluid bags. To prevent erroneous administration, do not attach the adrenaline infusion unless it is needed.

f. Record blood pressures on the other side to the fluid/adrenaline infusion, to avoid pronged cuff inflations and thus extravasation of infusion fluids.

**(ii) Management of a reaction (In addition to study procedures – see ASP Datasheet 3)**

a. Most reactions are related to the rate of antivenom infusion, and cause flushing, hypotension and bronchospasm. Some mild reactions resolve with temporary cessation of the antivenom infusion and recommencing it at a slower rate.

b. Envenomed patients may be severely coagulopathic, so it is important to be cautious when giving adrenaline to avoid blood pressure surges, which might lead to intracerebral haemorrhage.

c. Initial management of severe reactions (sudden hypotension, bronchospasm):

   i. Suspend the antivenom infusion.

   ii. Lie the patient flat (if not already), commence high flow/100% oxygen and support airway/ventilation as required.

   iii. Rapid infusion of 1L N Saline (20 mL/kg in children) over 2-3 minutes.

   iv. Adrenaline IM. into the lateral thigh, 0.01 mg/kg to maximum of 0.3 mg (alternatively, those experienced with IV. adrenaline infusions may proceed directly to this, as below).

   v. Liaise with toxicology service regarding ongoing management.

d. For reactions that do not respond to initial management:

   i. If hypotensive, repeat Normal Saline bolus as above (up to 50 mL/kg may be required).

   ii. Commence IV infusion of adrenaline (0.5-1 mL/kg/hour, of 1 mg in 100 mL) and titrate according to response; monitor BP every 3-5 minutes (using the arm opposite to the infusion); beware that as the reaction resolves adrenaline requirements will fall, the blood pressure will rise and the infusion rate will need to be reduced.

   iii. Consider nebulised salbutamol for bronchospasm, nebulised adrenaline for upper airway obstruction, and IV. atropine for severe bradycardia.

   iv. Seek advice urgently from the local/regional ED Consultant &/or ICU Consultant.

REFERENCE: Snakebite and Spiderbite Management Guidelines SA. Prof. Julian White.
Government of South Australia Department of Health Guideline Ref G0034, August 2006.

# Australian Snakebite Project (ASP)
# ESSA LABORATORY PROTOCOL

**Please send this information sheet to your pathology laboratory with the first serum research sample collected.**

## 1. Serum

Blood in plain or serum-separator (SST) tube

2000g for 10 min (3800-4000 rpm in a standard bench top centrifuge)

1.6-2mL aliquots of serum (in 2mL screw cap cryotubes if available)

Label each tube with **sample type** ("**Ser**"), **patient ID**, **date & time of collection**.

**Keep samples from each collection time separate in a single specimen bag, along with a copy of the corresponding request form.**

Freeze as soon as possible and transport in dry ice (or other suitable frozen transport) to -80°C storage. **NOTE: please freeze all available (earlier) left-over samples, even if they have been left unfrozen for several days, noting the date and time of freezing on the request forms.**

## 2. Left-over serum/plasma from earlier time points

The most important samples are the first ones taken, when the patient and doctor may not be aware of the study. Even if these samples have not been processed according to the procedures above, we can obtain important information from them. Therefore, please ensure that no snakebite samples are discarded without first discussing with a study coordinator (contact details at the bottom of this page).

## 3. If a serious adverse reaction occurs – EDTA plasma as well

If an allergic reaction occurs, the doctors may send additional samples of serum, plasma (citrate) and plasma (EDTA) to assess anaphylactic mediators, 15 minutes and 60 minutes after reaction onset. Please process as per 1 & 2 and freeze immediately. EDTA plasma needs a single spin only, and can be frozen in aliquots of 1.6-2 ml.

### 4. Results from your lab OR FAX from all States: (02) 4911 0501

If time permits we would appreciate copies of all results (biochemistry, haematology and coagulation):
**ALL STATES: :** Attn: Dr Geoff Isbister, Clinical Toxicology Research Group, Level 5, New Med Building, Calvary Mater Newcastle Hospital, Edith St, Waratah, NSW 2298.

**National Study Line (24 hours): 1800 676 944.** IF THIS FAILS then contact an Investigator directly: Dr Geoff Isbister **0438 466471 or the study team 02 40143870**

**Fax number for sending laboratory results: (02) 4911 0501**

## 5. Sample Transport

Frozen serum & plasma samples (send in a single batch on patient discharge)

**NSW**
For Dr Geoff Isbister

Specimen Reception, Hunter Area Pathology Service, John Hunter Hospital, Lookout Road, New Lambton Heights, NSW 2305
*PLACE IMMEDIATELY IN -20FREEZER*

**QLD**
Haematology Supervisor, Pathology Central Spec. Reception Block 7 Level 3, Royal Brisbane & Women's Hospital, Butterfield Street, Herston, QLD 4029. P. (07) 3646 5233
NOTE TO RECEPTION STAFF: Forward direct to Coag/Special Investigations *DO NOT UNPACK* KEEP IN -20 FREEZER

**TAS**
Contact: Jenny Gudden on 03 6222 8664 or Prof Simon Brown on 0419796678 to arrange transfer to Jack Jumper Allergy Program Laboratory, Royal Hobart Hospital

*KEEP IN – 20 FREEZER

**VIC**
Attn: Anjana De Silva (0410946996)

Monash University, Faculty of Medicine-Nursing and Health Sciences, Building 27, Reception, Clayton Campus, Wellington Rd, Clayton VIC 3800
*KEEP IN – 20 FREEZER

## Background Information about this study

The aim of this project is to administer antivenom early – as soon as the patient presents to hospital, without first waiting for laboratory tests or the development of clinical signs of envenoming (except nonspecific symptoms),and/or retrieval to a major hospital for laboratory testing. The objective is to determine if the administration of early antivenom will prevent envenoming effects and therefore significant morbidity or death.

**National Study Line (24 hours): 1800 676 944.** IF THIS FAILS then contact an Investigator directly:
Dr Geoff Isbister **0438 466471 or the study team 02 40143870**

**Fax number for sending laboratory results: (02) 4911 0501**

# Participant Information and Consent Form

**Full Project Title: Randomised controlled trial investigating the effects of early snake antivenom administration (ESAA)**

**Principal Researchers:** Dr Chris Johnston

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This Participant Information and Consent Form are **5** pages long. Please make sure you have all the pages.

## 1. Your Consent

You are invited to take part in the *Australian Snakebite Project* and a study to look into the effects of early snake antivenom administration (ESAA). Please read this information carefully and feel free to ask any questions.

Once you understand what the project is about and if you agree to take part, you will be asked to sign the Consent Form. By signing the Consent Form, you indicate that you understand the information and that you give your consent to participate in this research.

You will be given a copy of the Participant Information and Consent Form to keep as a record.

## 2. Purpose and Background

The purpose of the Early Snake Antivenom Administration (ESAA) is project is to investigate the effect of administrating antivenom to snake bite patients within two hours of being admitted to hospital.

For snake bite patients hospital staff will usually wait until the patients' blood tests results confirm that they have venom in their system before they give antivenom. However by the time the test results are available the venom is already damaging the body and some of these effects are not reversed by later treatment of antivenom. This project aims to test if giving antivenom as soon as possible after the patient presents to hospital, without waiting for laboratory test results or transporting patient to a larger hospital, will prevent the damaging effects of venom that may lead to significant illness or death.

Patients bitten by a venomous snake but are ineligible for ESAA will be invited to participate in the ASP project. The Australian Snakebite project (ASP), the observational arm of ESAA, is interested in recruiting all people bitten by venomous snakes. ASP is investigating the venom levels in the blood after a venomous snake bite and if they correlate with the effects of the bite. The researchers are also looking at how long the effects of envenomation last and the effects of antivenom on venom levels. The ASP study aims to improve the clinical care of snake bite to achieve optimal patient outcomes.

## 3. Participation is Voluntary

Participation in any research project is voluntary. If you do not wish to take part you are not obliged to. If you decide to take part and later change your mind, you are free to withdraw from the project at any stage. If you wish to withdraw your blood samples from the study these will be destroyed by the investigators as well as any information collected.

Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your routine treatment, or your relationship with those treating you.

## 4. Procedures

All participants: If you take part in this project you will receive standard care, and any other necessary treatments including pain relief, intravenous fluids and medicine to treat nausea and vomiting. We will record information about your snakebite and laboratory tests that are performed. In addition we will take a small additional amount of blood from you at the same time that bloods are taken for routine laboratory tests and therefore will not cause you any additional discomfort or inconvenience. We will use this extra blood to measure the amounts of venom and antivenom in your blood.

Snake bite patients who present to hospital within two hours of a bite are eligible for recruitement to ESAA. In addition to other standard treatments you will be randomly (like tossing a coin) put into one of two groups. The first group will receive intravenous tiger snake and brown snake antivenom within two hours of being admitted to hospital. The second group will receive the standard care given to snake bite patients according to the normal hospital protocol.

Blood will be taken as outlined in paragraph one of this section. You will be involved in the study for the duration of your stay in hospital which will usually be for a period of 24 to 48 hours. Occasionally because of severe complications of the snake bite your hospital stay may be longer. If you have any complications we will record information about these complications and may request additional blood samples to help us determine the nature of these complications.

We will also contact you 7 to 10 days after you have been discharged from hospital to determine if you have developed any delayed effects from the use of antivenom.

## 5. Collection of Tissue Samples for Research Purposes

By consenting to take part in this study, you also consent to the collection, storage and use of blood samples as described above. These tests will be done within 3 years of blood collection. The remaining blood will be kept for 15 years and may be used for associated research on allergic reactions, blood abnormalities from snake bite and other markers of snake venom activity when these tests become available or are developed. All samples will be destroyed after 15 years. If you do not want your blood sample to be stored for future research DO NOT check the box on the consent form.

## 6. Possible Benefits

We cannot guarantee that you will receive any benefits from this project except that your treatment will be guided by national experts on snake bite. However, your involvement in the study will significantly contribute to emergency medicine care of snake envenomed patients by either demonstrating that early antivenom administration is effective or not effective for particular clinical syndromes. It will also highlight whether laboratory tests and/or patient retrieval to larger hospitals are necessary reducing associated costs and burden on emergency medicine resources at these larger hospitals.

## 7. Possible Risks

Important risks for you being part of the study include side-effects to antivenom, however antivenom is administered to hundreds of patients each year with most reactions being allergic and usually mild. On occasion these reactions can be severe requiring treatment with adrenaline. About 1 in 4 people will develop a rash or itchiness following the administration of antivenom. About 1 in 20 people will have a more severe allergic reaction or anaphylaxis which results in a low blood pressure.

## 8. Injury

In the event that you suffer an injury as a result of participating in this research, hospital care and treatment will be provided by the public health service at no extra cost to you.

## 9. Privacy, Confidentiality and Disclosure of Information

All records dealing with your participation in this study will be kept under safe storage indefinitely in locked offices and buildings of the investigators. Any information obtained in

connection with this research project that can identify you will remain confidential and will only be used for the purpose of this research project to ensure accurate data linkage between clinical results and laboratory reports.

Data stored on computer will be de-identified (your name will be not be stored in the database) and password protected. Individual participants in the study will not be identifiable in any reports of the data from the protocol or any publications resulting from the research.

Where study staff identify missing data required for purposes of this research a request will be made to the treating hospital/s for copies of relevant clinical information held in the participants' medical record. Medical information will be accessed, used and stored in accordance with the NSW Health Records and Information Privacy Act (2002).

## 10. Ethical Guidelines and Approvals

This project (Reference number:15/02/18/3.03) will be carried out according to the *National Statement on Ethical Conduct in Research Involving Humans* (March 2007) produced by the National Health and Medical Research Council of Australia. This statement has been developed to protect the interests of people who agree to participate in human research studies.

The ethical aspects of this research project have been approved by the Human Research Ethics Committees of Hunter New England Area Health Service as the lead committee for all investigation sites.

## 11. Further Information, Problems

If you require further information or if you have any problems concerning this project (for example, any side effects), please contact the principal researchers. The researcher responsible for this project is **Dr Chris Johnston (02)98453597** (ASP 24hrs/day phone line 1800 676 944).

## 12. Complaints or Concerns

If you have any complaints or concerns about any aspect of the project, the way it is being conducted or any questions about your rights as a research participant, then you may contact the Hunter New England Health Human Research and Ethics Committee (HREC)as below (quote reference number: 15/02/18/3.03):

Hunter New England Region
Dr Nicole Gerrand
Manager, Research Ethics and Governance, Hunter New England Local Health Network
Telephone: 02 4921 4950
Email: hnehrec@hnehealth.nsw.gov.au

This project has also been authorised to be conducted at the Children's Hospital at Westmead. If you have any concerns about the conduct of this study, at this site please do not hesitate to contact the Research Governance Officer on (02) 9845 3011.

the children's hospital at Westmead

The Sydney children's Hospitals Network

PATIENTS COPY

NSW poisons Information Centre the children's hospital at Westmead

**Australian Snakebite Project (ASP)**

A collaboration of Australian country, regional and teaching hospitals

**Consent Form**

**Full Project Title: Randomised controlled trial investigating the effects of early snake antivenom administration (ESAA)**

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I have read and I understand the Participant Information **version 5** dated **4th Apr 2016 (SCHN V2 4th Apr 2016)**.

I have had an opportunity to ask questions and I am satisfied with the answers I have received.

I freely agree to participate in this project according to the conditions in the Participant Information.

I understand that I will be given a copy of the Participant Information and Consent Form to keep.

I understand that the researcher has agreed not to reveal my identity and personal details if information about these projects is published or presented in any public form.

I understand that there may be occasion for the research staff to request copies of information from my medical record that will allow the completion of the study datasheets and associated information for the study. Specifically I consent to the hospital providing the details of this admission after the event when they are contacted by the research staff.

I consent to being randomised and understand I may or may not receive antivenom.*)*

Participant's Name (printed) ……

* Signature …….…… Date……..

Witness Name (printed) …….

* Signature ……. Date……..

☐ I consent to the storage of any additional blood for further snake bite research projects.

Name of Person giving Consent (printed) ……

* Signature…….…… Date……

***Note:*** **All parties signing the Consent Form must date their own signature.**

the children's hospital at Westmead

The Sydney children's Hospitals Network

NSW poisons Information Centre the children's hospital at Westmead

**Australian Snakebite Project (ASP)**

A collaboration of Australian country, regional and teaching hospitals

**Consent Form**

**Full Project Title: Randomised controlled trial investigating the effects of early snake antivenom administration**

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I have read and I understand the Participant Information **version 5**dated **4th Apr 2016 (SCHN V3 4th Apr 2016).**

I have had an opportunity to ask questions and I am satisfied with the answers I have received.

I freely agree to participate in this project according to the conditions in the Participant Information.

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Participant's Name (printed) ……

* Signature …….…… Date……

Witness Name (printed) …….

* Signature……. Date……

☐ I consent to the storage of any additional blood for further snake bite research projects.

Name of Person giving Consent (printed) ……

* Signature…….…… Date……..

***Note:* All parties signing the Consent Form must date their own signature.**

***FAX completed form to (02)49110501***

**Third Party Consent Form** *(TO BE USED BY PARENTS/GUARDIANS OF CHILDREN.)*
**Full Project Title: Randomised controlled trial investigating the effects of early snake antivenom administration**

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I have read and I understand the Participant Information version **5** dated **4th Apr 2016 (SCHN V3 dated 4th Apr 2016)**.

I give my permission for_____to participate in this project according to the conditions in the Participant Information.

I will be given a copy of the Participant Information and Consent Form to keep.

The researcher has agreed not to reveal the participant's identity and personal details if information about this project is published or presented in any public form.

I understand that there may be occasion for the research staff to request copies of information from the medical record that will allow the completion of the study datasheets and associated information for the study. Specifically I consent to the hospital providing the details of this admission after the event when they are contacted by the research staff.

I consent to_____being randomised and understand they may or may not receive antivenom.

Participant's Name (printed) ……

Name of Person giving Consent (printed) ……

Relationship to Participant: ……..

* Signature …….. Date

Witness Name (printed) ……..

* Signature ……. Date

☐ I consent to the storage of any additional blood for further snake bite research projects.

Name of Person giving Consent (printed) ……

Relationship to Participant: ……..

* Signature …… Date

***Note:*** **All parties signing the Consent Form must date their own signature**

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**Australian Snakebite Project (ASP)**

A collaboration of Australian country, regional and teaching hospitals

**Third Party Consent Form** *(TO BE USED BY PARENTS/GUARDIANS OF CHILDREN.)*
**Full Project Title: Randomised controlled trial investigating the effects of early snake antivenom administration**

I have read and I understand the Participant Information version 5 dated **4th Apr 2016 (SCHN V3 dated 4th Apr 2016). .**

I give my permission for_____to participate in this project according to the conditions in the Participant Information.

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Participant's Name (printed) ……

Name of Person giving Consent (printed) ……

Relationship to Participant: ……..

* Signature …… Date

Witness Name (printed) ……..

* Signature …… Date

☐ I consent to the storage of any additional blood for further snake bite research projects.

Name of Person giving Consent (printed) ……

Relationship to Participant: ……..

* Signature …… Date

***Note:*** **All parties signing the Consent Form must date their own signature.**

**Fax to (02)49110501**

**ASP ESSA** **A**ustralian **S**nakebite **P**roject Datasheet **1**

**DOCTORS NAME:**

**STUDY ID NUMBER:**

Patient Contact Phone numbers:

Patient Name & URN:

or Patient Sticker Label

**HOSPITAL:**

Arrival Date: dd/mmm/yyyy

Arrival Time: : 24 hour clock

Sex:

DOB: dd/mmm/yyyy

**PREVIOUS HOSPITAL (If transferred)**

Date: Time:

Patient Weight:

**HISTORY OF BITE**

Bite Date: dd/mmm/yyyy

Time: : 24 hour clock

Part of body bitten:

Snake clearly seen to bite? ☐ Yes ☐ No

Nearest suburb/town/landmark:

Circumstances of bite: (activity at time)

No of bites:

Alcohol consumed: ☐ Yes ☐ No

**FIRST AID**

1. Has the patient been immobilised (kept on a stretcher/not walking) since the bite? ☐ Yes ☐ No

2. Has a PRESSURE BANDAGE +/- SPLINT been applied ☐ Yes ☐ No

2a.:Who was it first applied by? Time first applied: :

*USE 24 hour clock*

2b. Splinted with:

2c. Was it further reinforced (improved) by health professional? ☐ Yes ☐ No Time reinforced: :

3. Characteristics: of pressure bandage

☐ Loose & /or one layer only &/or part of limb only

☐ Firm, 2 or more layers, whole limb, well applied

☐ Acting as a venous tourniquet – limb swollen

4. Time removed: :

**VDK / SNAKE ID (if available/performed)** Cut window over suspected bite site

VENOM DETECTION KIT (VDK) tests performed by: ☐ LAB (Preferred) ☐ ED Doctor

VDK Result BITE SITE:

VDK Result URINE: (*only required if bite VDK is negative but patient is envenomed*)

VDK Result snake type: (e.g. Brown, tiger)

SNAKE, if available, sent for identification ☐ Yes ☐ No If Yes to whom:

ID Result:

FAX THIS PAGE IMMEDIATELY with COMPLETED CONSENT FORM TO (02) 4911 0501

STUDY ID NUMBER:

| Time Point | Pre Hospital | Admission | Pre-A/V | Post-Bite 6 hours | Post-Bite 12 hours | Post-Bite 18 hours | Post-Bite 24 hours |
|---|---|---|---|---|---|---|---|
| Date<br>Actual Time (hrs) | ___: ___ | ___:___ | ___:___ | ___:___ | ___:___ | ___:___ | ___:__ |
| Fang marks Number | | | | | | | |
| Pain | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Swelling | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Bruising | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Tender Lymph Node | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Headache | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Nausea | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Vomiting | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Abdo Pain | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Diarrhoea | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Sweaty | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Myalgia (Please circle one) | Nil Local Generalised | Nil Local Generalised | Nil Local Generalised | Nil Local Generalised | Nil Local Generalised | Nil Local Generalised | Nil Local Generalised |
| **Coagulopathy / Bleeding** | | | | | | | |
| Bleeding from bite | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Bleeding from IV puncture sites | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Bleeding from gums | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Dipstick urine +ve blood>1+ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| INTRACRANIAL BLEEDING | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| GASTROINTESTINAL BLEEDING | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Other (Specify) | | | | | | | |

**ASP** **A**ustralian **S**nakebite **P**roject Datasheet **2**pg2

STUDY ID NUMBER:

| Time Point | Pre Hospital | Admission | Pre-A/V | Post-Bite 6 hours | Post-Bite 12 hours | Post-Bite 18 hours | Post-Bite 24 hours |
|---|---|---|---|---|---|---|---|
| Date<br>Actual Time (hrs) | ___:____ | ____:____ | _____:___ | ____:____ | ____:____ | ____:____ | ____:__ |
| **Neurotoxicity** | | | | | | | |
| Ptosis | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Poor upgaze / diplopia | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Bulbar weakness (cough / gag) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Intercostal weakness | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Limb weakness | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Reduced FEV1 (record detailed spirometry data in med. record) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Cardiovascular** | | | | | | | |
| Collapse &/or unconscious | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Renal** | | | | | | | |
| Urine Output (please circle one) | Normal Decreased Nil | Normal Decreased Nil | Normal Decreased Nil | Normal Decreased Nil | Normal Decreased Nil | Normal Decreased Nil | Normal Decreased Nil |
| Change in Smell | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Anti-emetic given | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

**ANTIVENOM**

| Type | Batch Number | No of vials | Time Started | Duration | Adverse Effects? |
|---|---|---|---|---|---|
| | | | : | mins | ☐ Yes ☐ No |
| | | | : | mins | ☐ Yes ☐ No |

**CLOTTING FACTOR REPLACMENT (FFP, CRYO etc)**

| Type | Amount | Time Started | Duration | Adverse Effects? |
|---|---|---|---|---|
| | | : | mins | Yes ☐ No |
| | | : | mins | ☐ Yes ☐ No |

STUDY ID NUMBER

## ADVERSE REACTION

**(You may submit multiple copies if more than one reaction occurs; either photocopy this datasheet or contact the National Study Line to arrange for another to be faxed)**

## DATE & TIME OF ONSET

:

## LIKELY CAUSE

**REACTION FEATURES:**

| Erythema/ Urticaria | Angiodema | Nausea | Vomiting | Abdo/Pelvic pain | Throat tightness | Chest tightness | Cough |
|---|---|---|---|---|---|---|---|
| ☐Y ☐N | ☐Y ☐N | ☐Y ☐N | ☐Y ☐N | ☐Y ☐N | ☐Y ☐N | ☐Y ☐N | ☐Y ☐N |

| Stridor | Dyspnoea | Wheeze | Accessory Muscle use | Intercostal indrawing | Hypoxaemia SpO2<=92% | Altered Consciousness | Diaphoresis |
|---|---|---|---|---|---|---|---|
| ☐Y ☐N | ☐Y ☐N | ☐Y ☐N | ☐Y ☐N | ☐Y ☐N | ☐Y ☐N | ☐Y ☐N | ☐Y ☐N |

| BP Baseline BEFORE Rn | BP LOWEST During Rn | BP HIGHEST During Rn |
|---|---|---|
| / | / | / |

Other:

Was antivenom stopped? ☐ Y ☐ N

Was antivenom restarted? ☐ Y ☐ N At what rate was it re-started? (e.g. half, full)

**EMERGENCY TREATMENT**

(If space insufficient please copy and attach drug and fluid administration records + details of premeds if given)

| INTERVENTION | DOSE and ROUTE (if drug / fluid) | TIME |
|---|---|---|
| | | : |
| | | : |
| | | : |

**ONCE EMERGENCY TREATMENT HAS BEEN STARTED PLEASE DO THE FOLLOWING:**

1. TAKE ADDITIONAL RESEARCH BLOODS (1 x Serum, 1 x Citrate) PLUS 1 x EDTA (Purple) TUBE at **10mins and again at 1 hour** and send to the laboratory immediately (ON ICE if available)

2. Contact **ASP INVESTIGATOR on 1800 676 944** to discuss case management and investigation

***ASP ESSA*** **A**ustralian **S**nakebite **P**roject

# DISCHARGE PLAN

(Please give to patient on discharge)

**Information to the Patient**

Any patient who has received antivenom may develop serum sickness, from 5 to 20 days later. The symptoms of serum sickness include: fever, rash/urticaria (hives), muscle/joint aches, headache, malaise (feeling generally unwell), and nausea/vomiting. If you develop any of these symptoms visit your GP for treatment for serum sickness. Please take this sheet with you.

*Thank you for participating in this study.*

**More information about the Australian Snakebite Project (ASP) can be found at the following website: http://www.newcastle.edu.au/ctrg**

**You can also contact an ASP investigator on 1800 676 944**

## Information for the GP

This patient has been recently treated for a venomous snake bite with antivenom. Serum sickness is a delayed immune reaction that can result from the injection of foreign protein or serum. Serum sickness is diagnosed as three or more of the symptoms listed in the table below that present 5-20 days post-antivenom.

Symptoms:
(tick those present)

| | | | |
|---|---|---|---|
| fever/chills | | headache | |
| erythematous rash | | malaise | |
| urticaria | | nausea/vomiting | |
| myalgia | | lethargy | |
| arthralgia | | | |

Guidelines recommend that serum sickness should be treated with a one-week course of corticosteroids and when greater than 25mL of antivenom is administered it is advisable to give a prophylactic course of oral corticosteroids. In severe cases of serum sickness an oral prednisone starting dose of 60 mg/day with tapering down over two or more weeks is thought to be appropriate.

The following blood tests are recommended: Full blood count, ESR, CRP, C3, C4 & 1 extra plain serum tube for ASP investigators. **Please call 1800 676 944 if you would like to speak to an ASP investigator.**

Name of Doctor & Medical Centre: _____

Laboratory where bloods were sent: _____

Please note the patient has signed a consent form to be involved in the study. ASP investigators will contact the laboratory to organise transportation of the extra plain serum tube.

***Please fax this sheet to (02) 4911 0501.**

*Thank you for your assistance*