

**AIM** To investigate snake envenoming and the appropriate use and safety of snake antivenoms in Australia.

**Inclusion Criteria** – Any patient who has been bitten by a snake, whether definite or suspected.

**Exclusion Criteria** – (1) Age < 2years

## 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 bloods**; a **plain/serum tube** (colour varies between labs). Note on all request forms “**Australian Snakebite Project**”

**STEP 2** – **Call an ASP investigator** on the mobile number below. We will fax the necessary paperwork to you (if this is not already to hand) and liaise with your pathology service.

**STEP 3** – 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 the fax number below.

**STEP 4** – Start filling out the **remaining datasheets**; keep these with the patient’s notes and continue recording relevant clinical data.

**STEP 5** – Proceed as follows:



1. Standard Care for snakebite.
2. Antivenom use as indicated, e.g. for coagulopathy, neurotoxicity, myotoxicity; 1 vial for all snakes and no re-dosing
3. At **3 hours** post-antivenom take **research blood tubes only**
4. Additional **research bloods** whenever routine bloods are taken.

**STEP 6** – Record all **premedications**, **reactions to antivenom (AV)**, and **bleeding complications** on the study datasheet. **If a reaction to AV occurs, call the National Study Line / Investigator and take additional samples as outlined on the adverse reaction datasheet.**

**STEP 7** – Fax all completed datasheets 1-4 (re-send Datasheet 1) to the fax number below

**National Study Line (24 hours): 1800 676 944** (IF THIS FAILS then contact a Chief Investigator directly: A/Prof Geoff Isbister **0438 466471** or Professor Simon Brown **0419 796678**)

**FAX NUMBER FOR SUBMITTING CONSENT FORMS AND DATASHEETS: (02) 49110501**

## 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 i.m. 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 i.v., 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 4)

- 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 i.m. into the lateral thigh, 0.01 mg/kg to maximum of 0.3 mg (alternatively, those experienced with i.v. 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 i.v. 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 i.v. 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.



Tropical Toxinology Unit  
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Assoc Prof Simon Brown  
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PO Box 41096 Casuarina  
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31 October 2013

**Australian Snakebite Project (ASP)  
Information Sheet**

You are invited to take part in the *Australian Snakebite Project*, being conducted by Menzies School of Health Research. This is a research project and participation is entirely voluntary. You can withdraw from the study at any time.

***Background and Aims of the Study***

Spider and snake bites are not uncommon in Australia and antivenoms exist for the treatment of many of these bites. However, despite this, there are still many questions about the effects of different venoms and about the exact amount of antivenom that is required for treatment.

This study will measure the venom levels in blood after a sting or bite by a venomous animal (snake or spider). This aims to help us determine whether venom levels are important in predicting the severity of certain envenomations, and whether they correlate with the effects of the bite or sting. The study will also be able to determine how long the human body takes to excrete the toxins i.e. how long the effects of the envenomation will take to wear off. Finally the study will look at the effects that treatment with antivenom has on venom levels to help establish the correct amount of antivenom to use.

***Your Involvement***

If you agree to take part in this study you will be required to give a number of extra blood samples while you are in hospital to measure the venom and antivenom levels in your blood. This will require the insertion of an intravenous cannula into a vein in your hand or arm at the start of the study. This will then be used to take a number of samples of blood throughout the course of the study to minimise the discomfort.

Depending on how long you need to remain in hospital, up to 4 samples of blood will be taken each day from the cannula that had already been inserted. *In the majority of cases the blood will be taken at the same time as you would have blood collected for the treatment of the sting or bite.*

The cannula will be inserted by experienced health care staff and the only risk to you is from the venepuncture which could involve a small amount of bruising at the site and the small chance of an infection developing from the presence of the cannula. The standard precautions of using a sterile technique to collect blood and insert the cannula will significantly reduce the risk of any infection developing.

***Participation in the Study***

Participation in the study is completely voluntary and you will suffer no disadvantage if you elect to not be involved in the study and will continue to receive optimal ongoing care. You may withdraw from the study at any time.

If you do participate in the study you will receive exactly the same treatment as if you were not involved in the study. *The only difference will be the research blood samples which are taken with each routine blood collection.*

### **Use of the data collected**

The information collected from this study will be stored in a de-identified fashion. You can be assured that all records dealing with your participation in this study will be kept under safe storage for 15 years after completion. Authorised persons within the institution may also inspect records for purposes of data audit only and on occasion the research staff will request your medical records for dates and times of your clinical effects and medications. 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.

Any concerns, enquiries or complaints about the conduct of the study should be directed to the Secretary, Human Research Ethics Committee of the NT Department of Health and Community Services and Menzies School of Health Research, phone 8922-7922.

If you have any questions, you may contact Geoff Isbister at the Calvary Mater Newcastle on 4921 1211 or Bart Currie at the Menzies School of Health Research on 8922-8196 or discuss this with your treating doctors.

This form is for you to keep.

Dr Geoff Isbister  
Clinical Toxicologist  
Calvary Mater Newcastle



Tropical Toxinology Unit  
 Menzies School of Health Research and  
 Royal Darwin Hospital



Prof Bart Currie  
 Assoc Prof Geoff Isbister  
 Assoc Prof Simon Brown  
 Email: Geoff.isbister@gmail.com  
 Mobile : 0438 466 471 / 1800 676 944

PO Box 41096 Casuarina  
 Northern Territory 0811, Australia

31 October 2013

**VOLUNTEER CONSENT FOR INCLUSION IN THE  
 Australian Snakebite Project (ASP)**

I, ..... have been asked to participate in the above study under the direction of Dr Geoff Isbister. I understand that while the study will be under his supervision, other professional persons may assist or act on his behalf.

I have been given clear verbal information about this study and have read the attached 'Information Sheet'. I understand the general purposes and methods of the study and have been given time to consider whether I want to take part.

I have been told that there is no additional risk to being involved in this study, as the only requirement is that more blood be taken when bloods are normally taken as part of the routine care for snakebite. I have been able to ask questions and all questions have been answered satisfactorily.

I know that I do not have to take part in the study and that I can withdraw or be withdrawn by the doctor in charge at any time during the study and continue to receive appropriate treatment. My participation in the study does not affect any right to compensation, which I may have under statute or common law. I agree to the publishing of results of this study, provided my name or other identifying information is not used. I agree to be contacted by phone for follow up once I am discharged.

I consent to additional blood samples being taken and donate those specimens for the purpose of this study. In making my donation of blood, I understand and agree that the blood, and all its constituents, will be used only in relation to the above clinical research purpose. The blood, and all its constituents, may be stored to enable future testing in relation to this research project and related future research. No other researchers have access to blood samples.

I understand that there may 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 hereby voluntarily consent and offer to take part in this study.

..... Name of Volunteer	..... Signature of Volunteer	..... Date
..... Name of Witness to Volunteer's signature	..... Signature of Witness	..... Date
..... Name of treating doctor	..... Signature of treating doctor	..... Date



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31 October 2013

**NEXT OF KIN, PARENT or GUARDIAN CONSENT FOR PATIENT  
 INCLUSION IN THE *Australian Snakebite Project (ASP)***

I, ..... in the capacity of 'Next of Kin' / Parent / Guardian  
 (delete as appropriate) have been asked to give my consent for:

..... (patient name) to participate in the above study under the  
 direction of Dr Geoff Isbister. I understand that while the study will be under his supervision, other  
 professional persons may assist or act on his behalf.

I have been given clear verbal information about this study and have read the attached 'Information  
 Sheet'. I understand the general purposes and methods of the study and have been given time to  
 consider whether I want the above person to take part. I have been told that there is no additional risk  
 from the patient being involved in this study, as the only requirement is that more blood be taken  
 when bloods are normally taken as part of the routine care for snakebite. I have been able to ask  
 questions and all questions have been answered satisfactorily.

I know that the study is voluntary and that the patient can withdraw or be withdrawn by the doctor in  
 charge at any time during the study without affecting his/her future medical care. I agree to publishing  
 of results of this study provided the patient's name or other identifying information is not used. I agree  
 for the patient to be contacted by phone for follow up once I am discharged.

I consent to additional blood samples being taken from the patient. I understand and agree that the  
 blood, and all its constituents, will be used only in relation to the above clinical research purpose. The  
 blood, and all its constituents, may be stored to enable future testing in relation to this research and  
 related future research. No other researchers have access to blood samples.

I understand that there may occasion for the research staff to request copies of  
 information from the patient's 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 hereby voluntarily consent to the patient taking part in this study.

..... Name of Next of Kin	..... Signature of Next of Kin	..... Date
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..... Name of Witness to Next of Kin's signature	..... Signature of Witness	..... Date
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The treating doctor

I hereby declare that I have given the Next of Kin the 'Volunteer Information Sheet' containing the  
 information referred to above and believe he/she has understood it.

..... Name of treating doctor	..... Signature of treating doctor	..... Date
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Including ASP-FFP

RESEARCHER OFFICE ONLY  
STUDY ID NUMBER:

DOCTORS NAME

Patient Name and URN:  
  
or Patient Sticker Label

Patient contact telephone number(s)

HOSPITAL:

Arrival Date:  Arrival Time:  :   
dd / mmm / yyyy 24 hour clock

Pt. SEX:  M / F Date of Birth:   
dd / mmm / yyyy

PREVIOUS HOSPITAL (If transferred):

**HISTORY OF BITE AND FIRST AID**

Bite Date:  Time:  :  Part of body bitten:   
dd / mmm / yyyy 24 hour clock

Snake clearly seen to bite?  Yes  No Nearest suburb/town/landmark:

Circumstances of bite (activity at the time):  Number of bites:

Symptoms/signs so far:  SEE NEXT PAGE (Clinical Datasheet 2) Time of symptom onset:  :   
24 hour clock

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

Has a PRESSURE BANDAGE +/- SPLINT been applied prior to arrival at this hospital?  Yes  No

If Yes: Who was it first applied by?  Text Time first applied:  :  24 hour clock

Was it further reinforced (improved) by a health professional BEFORE arrival at this hospital?  Yes  No Time reinforced:  :

Was it removed BEFORE arrival at this hospital?  Yes  No Time removed?  :

**INITIAL ASSESSMENT & ACTIONS**

Was a pressure bandage  Yes  No Characteristics:  Loose &/or one layer only &/or part of limb only  
in place PRIOR TO arrival?  Firm, 2 or more layers, whole limb, well applied

Was the bitten limb  Yes  No  Acting as a venous tourniquet- limb swollen  
splinted PRIOR TO arrival?  Acting as an arterial tourniquet- limb ischaemic

Splinted with:

Was pressure-immobilisation/splinting applied or improved on or after arrival in this hospital?  Yes  No

**VDK / SNAKE ID (If available/performed)**

Cut window over suspected bite site - are TEETH/FANG MARKS clearly seen?  Yes  No How many?

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

VDK Result BITE SITE:  VDK Result URINE (Only required if bite site VDK is negative and Pt. is envenomed):

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

ID result:

RESEARCHER OFFICE ONLY  
STUDY ID NUMBER:

**CLINICAL FEATURES OF ENVENOMING**

UPDATE THIS SHEET EACH TIME BLOOD IS TAKEN, AND IF SIGNIFICANT CHANGES OCCUR

		ONSET Date/time (24 hr clock)	RESOLVED Date/time (24hr clock)
<b>Bite site</b>			
Pain	Y / N	: : : : : :	: : : : : :
Swelling	Y / N	: : : : : :	: : : : : :
Bruising	Y / N	: : : : : :	: : : : : :
<b>Regional lymph nodes</b>			
Pt. aware of pain	Y / N	: : : : : :	: : : : : :
Tender on examination	Y / N	: : : : : :	: : : : : :
<b>Non-specific systemic features</b>			
Nausea	Y / N	: : : : : :	: : : : : :
Vomiting	Y / N	: : : : : :	: : : : : :
Headache	Y / N	: : : : : :	: : : : : :
Abdo pain	Y / N	: : : : : :	: : : : : :
Generalised sweating	Y / N	: : : : : :	: : : : : :
Diarrhoea	Y / N	: : : : : :	: : : : : :
<b>Coagulopathy / bleeding</b>			
Bleeding from bite	Y / N	: : : : : :	: : : : : :
Bleeding from IV puncture sites	Y / N	: : : : : :	: : : : : :
Bleeding from gums	Y / N	: : : : : :	: : : : : :
Dipstick urine +ve blood >1+	Y / N	: : : : : :	: : : : : :
INTRACRANIAL BLEEDING	Y / N	: : : : : :	: : : : : :
GASTROINTESTINAL BLEEDING	Y / N	: : : : : :	: : : : : :
Other, specify: <input style="width: 150px;" type="text"/>		: : : : : :	: : : : : :
<b>Neurotoxicity</b>			
Ptosis	Y / N	: : : : : :	: : : : : :
Poor upgaze / diplopia	Y / N	: : : : : :	: : : : : :
Poor lateral gaze / diplopia	Y / N	: : : : : :	: : : : : :
Bulbar weakness (cough / gag)	Y / N	: : : : : :	: : : : : :
Intercostal weakness	Y / N	: : : : : :	: : : : : :
Limb weakness	Y / N	: : : : : :	: : : : : :
Reduced FEV1 (record detailed spirometry data in med. record)	Y / N	: : : : : :	: : : : : :
<b>Myotoxicity</b>			
Muscle pain, bitten limb	Y / N	: : : : : :	: : : : : :
Tender muscles, bitten limb	Y / N	: : : : : :	: : : : : :
Muscle pain, generalised	Y / N	: : : : : :	: : : : : :
Tender muscles, generalised	Y / N	: : : : : :	: : : : : :
Trismus / jaw pain	Y / N	: : : : : :	: : : : : :
<b>Cardiovascular</b>			
Collapse &/or unconscious	Y / N	: : : : : :	: : : : : :
Other (specify): <input style="width: 150px;" type="text"/>		: : : : : :	: : : : : :
<input style="width: 150px;" type="text"/>		: : : : : :	: : : : : :



RESEARCHER OFFICE ONLY  
STUDY ID NUMBER:

**MANAGEMENT & BLOOD SAMPLING**

**REMOVAL OF PRESSURE-IMMOBILISATION**

DATE:  TIME:  :  24 hour clock      PATIENT WEIGHT  kg

**PREMEDICATIONS (PRIOR TO FIRST DOSE OF ANTIVENOM), IF ANY**

MEDICATION	DOSE and ROUTE	TIME	ANY ADVERSE EFFECT?	
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	:	Yes / No	<b>If YES go to Datasheet 4</b>
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	:	Yes / No	
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	:	Yes / No	

**ANTIVENOM**

TYPE	BATCH NUMBER(S)	No. of vials	Time STARTED	DURATION (Minutes)	ANY ADVERSE EFFECT?	
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	:	:	<input style="width: 50px;" type="text"/>	Yes / No	<b>If YES go to Datasheet 4</b>
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	:	:	<input style="width: 50px;" type="text"/>	Yes / No	
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	:	:	<input style="width: 50px;" type="text"/>	Yes / No	
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	:	:	<input style="width: 50px;" type="text"/>	Yes / No	

**CLOTTING FACTOR REPLACEMENT (FFP, CRYO etc.)**

TYPE	Amount	Time STARTED	DURATION (Minutes)	ANY ADVERSE EFFECT?	
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	:	<input style="width: 50px;" type="text"/>	Yes / No	<b>If YES go to Datasheet 4</b>
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	:	<input style="width: 50px;" type="text"/>	Yes / No	
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	:	<input style="width: 50px;" type="text"/>	Yes / No	
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	:	<input style="width: 50px;" type="text"/>	Yes / No	

**PLEASE RECORD BLOOD SAMPLING TIMES**

**IMPORTANT NOTE:** All cases with coagulopathy must have research bloods at 3 hours post antivenom and a full set of both research bloods and coagulation studies at 6 hours post first dose of antivenom.

DATE      TIMES (24 hour clock)

<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>

**LABORATORY RESULTS:** Please attach copies of all investigation results reported by your hospital laboratory.

**ADVERSE REACTION**

RESEARCHER OFFICE ONLY  
STUDY ID NUMBER:

(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)

<b>DATE &amp; TIME OF ONSET</b>		<b>LIKELY CAUSE</b>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
dd / mmm / yyyy 24 hour clock			
<b>REACTION FEATURES:</b>	Erythema/ Urticaria	Angioedema	Nausea
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Yes / No	Yes / No	Yes / No
	Vomiting	Abdo/Pelvic Pain	Throat tightness
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Yes / No	Yes / No	Yes / No
	Chest tightness	Cough	
	<input type="text"/>	<input type="text"/>	
	Yes / No	Yes / No	
	Stridor	Dyspnoea	Wheeze
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Yes / No	Yes / No	Yes / No
	Accessory Muscle Use	Intercostal indrawing	Hypoxaemia (SpO2<=92%)
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Yes / No	Yes / No	Yes / No
	Altered consciousness	Diaphoresis	
	<input type="text"/>	<input type="text"/>	
	Yes / No	Yes / No	
BP Baseline BEFORE Rn	BP LOWEST during Rn	BP HIGHEST during Rn	OTHER: <input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	
/	/	/	
<b>EMERGENCY TREATMENT</b>	<b>INTERVENTION</b>	<b>DOSE and ROUTE (IF DRUG/FLUID)</b>	<b>TIME</b>
<i>If space here is insufficient please photocopy and attach drug and fluid administration records</i>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>ONCE EMERGENCY TREATMENT HAS BEEN STARTED PLEASE ALSO DO THE FOLLOWING:</b>			
<b>1. TAKE ADDITIONAL RESEARCH BLOODS (1xSerum, 1xCitrate) PLUS 1xEDTA (Purple) TUBE and send to the laboratory immediately (ON ICE if available)</b>			
(i) 10-15 minutes after reaction onset/emergency treatment	<input type="text"/>	TIME TAKEN:	<input type="text"/>
	Yes / No		:
(i) One hour after reaction onset/emergency treatment	<input type="text"/>	TIME TAKEN:	<input type="text"/>
	Yes / No		:
<b>2. CONTACT THE ASP-FFP INVESTIGATOR to discuss case management and investigation, and to arrange for another Datasheet 4 to be faxed if required.</b>			
<b>DATE &amp; TIME OF RESOLUTION OF THE REACTION</b>			
<input type="text"/>	<input type="text"/>		
dd / mmm / yyyy 24 hour clock			
<b>NOTES/ COMMENTS:</b>	<input type="text"/>		

# Australian Snakebite Project (ASP) LABORATORY PROTOCOL

## 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. Blood films

From **EDTA** samples please prepare a **blood film** to send to us, which we use to measure red cell fragmentation – an **unstained** film is preferable.

## 3. 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).

## 4. 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.

## 5. Results from your lab

If time permits we would appreciate copies of all results (biochemistry, haematology and coagulation):

**WA:** Centre for Clinical Research in Emergency Medicine (CCREM), Dept. of Emergency Medicine, Royal Perth Hospital, GPO Box X2213, Perth, WA 6000

**Other States:** Attn: Renai Kearney, Dept. of Clinical Toxicology & Pharmacology, Calvary Mater Newcastle Hospital, Edith St, Waratah, NSW 2298

**OR FAX from all States: (02) 4911 0501**

**National Study Line (24 hours): 1800 676 944.** IF THIS FAILS then contact a Chief Investigator directly: Dr Geoff Isbister **0438 466471** or A/Prof Simon Brown **0419 796678**  
**Fax number for sending laboratory results: (02) 4911 0501**

# Australian Snakebite Project (ASP) LABORATORY PROTOCOL

## 6. Sample transport

(i) **Blood Films**- send by mail to: Dr Geoff Isbister, Calvary Mater Newcastle, Edith Street Waratah, NSW 2298

**OR**

Send with frozen samples

(ii) **Serum & Plasma samples (send in a single batch on patient discharge)**

### NSW and VIC

For Dr Geoff Isbister  
Specimen Reception, Hunter Area  
Pathology Service, John Hunter  
Hospital, Lookout Road, New  
Lambton Heights, NSW 2305  
  
\*PLACE IMMEDIATELY IN -80  
FREEZER\*

### TAS

Keep in -80. Contact Jenny  
Gudden on 62227599 or  
A/Prof Simon Brown on  
0419796678 to arrange  
transfer to Jack Jumper  
Allergy Program Laboratory,  
Royal Hobart Hospital.

### SA

c/- Vaughan Williams,  
Coagulation & Haematology  
Laboratory, Women's &  
Children's Hospital  
72 King William Road,  
North Adelaide, SA 5006  
  
\*PLACE IMMEDIATELY IN -80  
FREEZER\*

### 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\*

### NT

c/- Bart Currie  
Menzies School of Health  
Research  
Rocklands Drive  
Casuarina, NT 0811  
  
\*PLACE IMMEDIATELY IN -80  
FREEZER\*

### WA

Nick Michalopoulos  
Haematology, Pathwest J  
Block, QE II Medical Centre,  
Nedlands, WA 6009  
  
\*PLACE IMMEDIATELY IN -  
80 FREEZER\*

## Background information about this study

ASP aims to: 1) Investigate the use and safety of snake antivenoms and; 2) Investigate the efficacy and safety of fresh frozen plasma (FFP) for treating severe venom-induced consumptive coagulopathy (VICC). Ultimately our goal is to optimize the use of antivenom, coagulation tests and clotting factor replacement in these patients who are at significant risk of serious bleeding. If you have any queries, please contact us on the National Study Line below.

**National Study Line (24 hours): 1800 676 944.** IF THIS FAILS then contact a Chief Investigator directly: Dr Geoff Isbister **0438 466471** or A/Prof Simon Brown **0419 796678**  
**Fax number for sending laboratory results: (02) 4911 0501**