

## 20 MINUTE CLOTTING TEST FOR BOOMSLANG, VINE SNAKE BLEEDING SYNDROME - HAEMOTOXIC VENOM

Rapid test of blood coagulability, done at bedside			
Take a few millilitres of blood by venepuncture and place in a new, clean, dry glass vessel			
Leave undisturbed at room temperature for 20 minutes	Start Time:	End Time:	
Tilt once to see whether or not the blood has clotted.			
Other more sensitive laboratory tests: prothrombin time (often reported as INR), thrombin and fibrinogen levels, activated partial thromboplastin times and measurement of fibrinogen degradation products and D-dimer concentrations.			
Laboratory investigations to include: urinalysis, full blood count, urea and electrolytes and serum creatinine.			

REACTION TO ANTIVENOM	POSITIVE ANTIVENOM RESPONSE
Urticaria	Progression of Swelling Stopped
Pruritis	Improvement of Neurotoxic Effects within 30 min
Febrile Reaction	Blood Pressure normalises within 1 hour
Restlessness / Confusion	Cardiac Arrhythmias improve rapidly
Bronchospasm	Cardiovascular effects (hypotension, sinus bradycardia) may respond within 10-20 min
Hypotension	Spontaneous Systemic Bleeding usually stops within 15-30 min
	Blood Coagulopathy
Other:	

SNAKE VENOM OPHTHALMIA - FIRST AID
<b>Immediate irrigation with water or bland solution</b>
MEDICAL PRACTITIONER
Single application of local anaesthetic eye drops (overcome tightly closed eyelids during irrigation)
Fluorescein Staining
Slit lamp
Corneal Erosion
Antibiotic Eye Drops / Ointments
Mydriatic
Eye pad
Daily Slit Lamp Examination until cured

EMERGENCY CONTACT NUMBERS FOR ADVICE					
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**Place Patient Sticker Here**

Hospital / Clinic: .....

Admission No.: .....

Title: Prof. Dr. Rev. Mr. Mrs. Ms.

Surname: .....


Names: .....

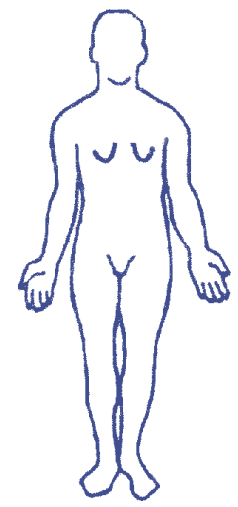
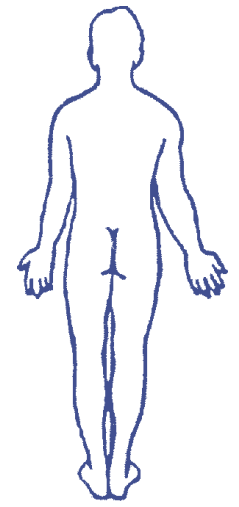
Attending Doctor: .....

**Snakebite Management:**  
**South African Consensus**  
**Guideline – Adapted**  
**For SASS 2022**

**EMERGENCY DEPARTMENT**  
**SNAKEBITE MANAGEMENT PATHWAY**

*SUPPORTIVE PATHWAY TO BE COMPLETED WITH P1 DOCUMENT -  
 ADD PATHWAY TO P1 DOCUMENT*



SNAKEBITE TARGETED HISTORY		
Body Part Bitten	FRONT	BACK
		
Time Bitten		
Current location of snake		

<b>Description of the snake</b>	<input type="checkbox"/> Dark brown	<input type="checkbox"/> Blowing sound (Adder)	<input type="checkbox"/> Characteristic hood & hiss (Cobra)
	<input type="checkbox"/> Green in colour	<input type="checkbox"/> Light brown	<input type="checkbox"/> Spotted
	<input type="checkbox"/> Black	<input type="checkbox"/> Small head	<input type="checkbox"/> Large head
	Other: _____		

**Type of snake (if known)**

<b>Signs &amp; Symptoms</b>	<b>Cytotoxic Bites:</b>		
	<input type="checkbox"/> Pain	<input type="checkbox"/> Swelling	<input type="checkbox"/> Discolouration
	<b>Neurotoxic Bites:</b>		
	<input type="checkbox"/> Metallic Taste	<input type="checkbox"/> Slurry Speech	<input type="checkbox"/> Ptosis (Difficulty Opening Eyes)
	<input type="checkbox"/> Drowsiness	<input type="checkbox"/> Weakness	<input type="checkbox"/> Respiratory Difficulty
	<b>Haemotoxic Bites:</b>		
	<input type="checkbox"/> Bleeding (Bite Site / Anywhere Else)	<input type="checkbox"/> Other: Specify _____	

<b>Previous snakebites</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date(s): _____
<b>Received Antivenom</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Abnormal Reaction/ Anaphylaxis after receiving antivenom</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	

DISCLAIMER  
 THE AUTHORS AND EDITOR HAVE EXERTED EVERY EFFORT TO ENSURE THAT THE CLINICAL PROCEDURES AND RECOMMENDATIONS DESCRIBED HEREIN ARE BASED ON CURRENT KNOWLEDGE AND STATE OF THE ART INFORMATION OBTAINED FROM ACKNOWLEDGED AUTHORITIES, TEXTS AND JOURNALS. HOWEVER, THEY CANNOT BE CONSIDERED ABSOLUTE AND UNIVERSAL RECOMMENDATIONS. EACH PATIENT SITUATION MUST BE CONSIDERED INDIVIDUALLY. THE READER IS URGED TO CHECK THE PACKAGE INSERTS OF DRUGS AND EQUIPMENT AND THE MANUFACTURERS RECOMMENDATIONS FOR INDICATIONS, CONTRAINDICATIONS, PROPER USAGE, WARNINGS AND PRECAUTIONS BEFORE USE. THE AUTHORS AND EDITOR DISCLAIM RESPONSIBILITY FOR ANY ADVERSE EFFECTS RESULTING DIRECTLY OR INDIRECTLY FROM INFORMATION PRESENTED IN THIS BOOKLET, UNDETECTED ERRORS OR MISUNDERSTANDINGS BY THE READERS.

## FOCUSED PHYSICAL ASSESSMENT BY TRAUMA TEAM

Assessment should be focused on deciding if a significant envenomation has occurred and differentiating which envenomation syndrome is presenting:

**PPS** (spitting cobras, puff adder, gaboon adder )- look for the rate of swelling, progression, discoloration and blistering at the site.

Mild to moderate swelling - Stiletto snakes/night adders - cause less swelling with potential local damage but only needs conservative treatment.

**PW** (mambas, non spitting cobras) - **any neurological sign is a medical emergency as it may lead to respiratory arrest. Early signs are metallic taste, paraesthesia, blurred vision with ptosis, difficult speech and swallowing. Patient may have a "drunk" appearance. Full preparation for intubation and ventilation should be made if any of these signs are present.**

**Bleeding** (boomslang, vine snake) - may take many hours to develop, thus cautious monitoring is essential. Bleeding from the bite site and oropharyngeal area (gums) are often the first signs.

20 minute Clotting test is positive in these patients.

Draw a ring around the bite area with a permanent marker pen and record the time inside the drawn ring

Monitor every 30 minutes for progression of symptoms and swelling of the area.

Examine the patient for tooth and fang marks or even tiny scratch (Boom slang or Black mamba)

<b>Local Signs</b>	<input type="checkbox"/> Swelling <input type="checkbox"/> Persistent Bleeding <input type="checkbox"/> Discolouration / Blistering
	Other
<b>Systemic Signs</b>	<input type="checkbox"/> Neurotoxic / Paralysis <input type="checkbox"/> Cardiovascular Instability

### ALLERGY PROFILE

Any medication allergy?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have you had antivenom treatment before?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you suffer from asthma or hay fever?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have you had infantile eczema?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Any other allergies, e.g. food (peanuts) or bee stings?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have you ever been bitten by a snake before?	<input type="checkbox"/> Yes <input type="checkbox"/> No

**If any of the answers above are Yes – Prepare for High Possibility of Anaphylaxis**

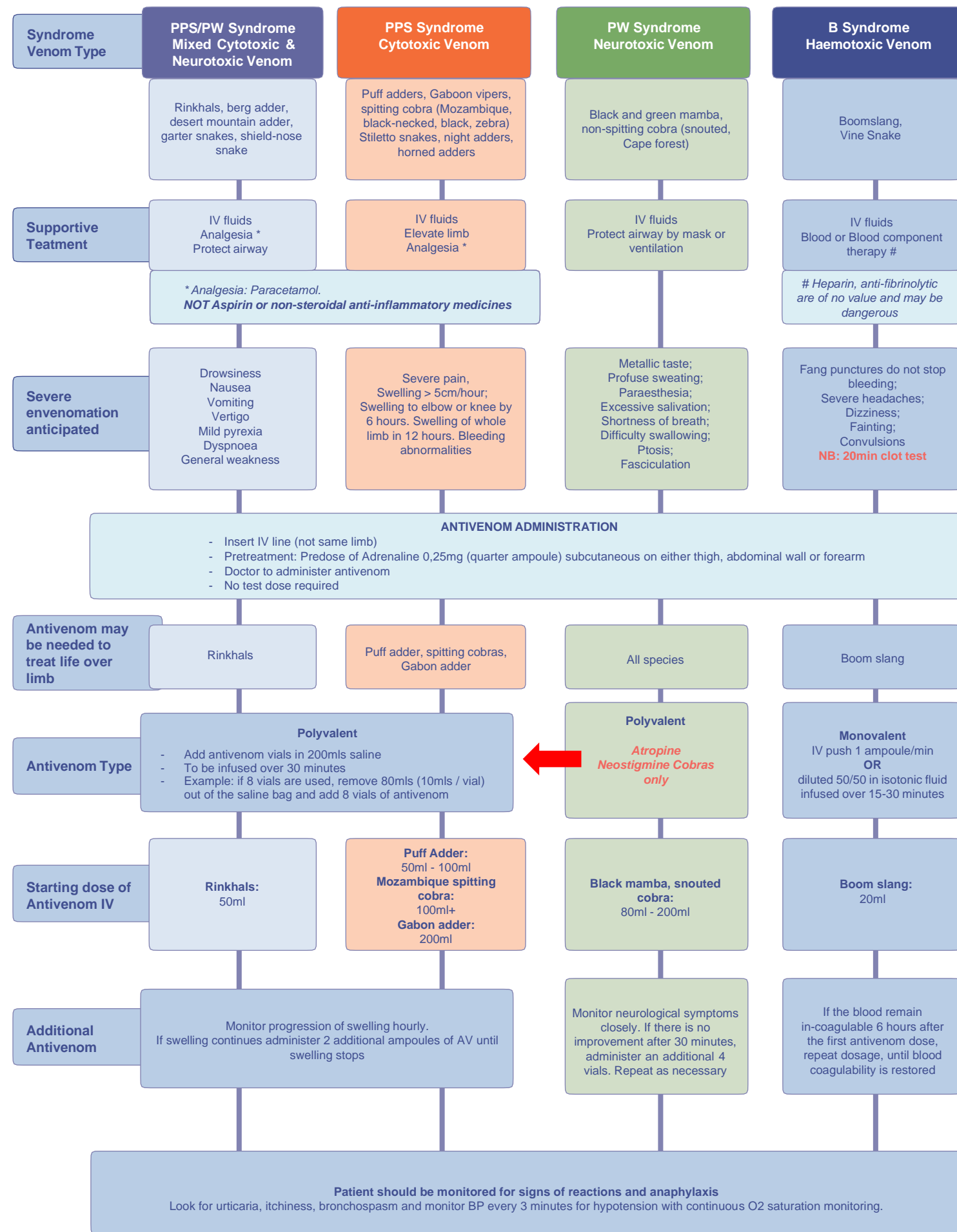
### MEDICATION PRESCRIPTION AND ADMINISTRATION

Drug Name	Dose	Route	Site	Time	Signature
<b>Prescribing Dr</b>					<b>Signature</b>

PPS: Painful Progressive Swelling

PW: Progressive Weakening

B: Bleeding



(Adapted for the South African Snakebite Symposium 2022)  
 (Snakebite Management: South African Consensus Guideline – SASS 2022)  
 (Swaziland Antivenom Foundation 2018)  
 ISO ED 00107 V1 Nov 2019 NETCARE

(Blaylock, 2005) and see also Muller et al SAMJ 2012 – use of atropine and neostigmine