Table 74.2 Progressive onset of major systemic symptoms and signs of untreated envenomation (in massive envenomation or in a child, a critical illness may develop in minutes rather than hours)

<1 h after bite
- Headache
- Nausea, vomiting, abdominal pain
- Transient hypotension associated with confusion or loss of consciousness
- Coagulopathy (laboratory testing)
- Regional lymphadenitis

1–3 h after bite
- Paresis/paralysis of cranial nerves, e.g. ptosis, double vision, external ophthalmoplegia, dysphonia, dysphagia, myopathic facies
- Haemorrhage from mucosal surfaces and needle punctures
- Tachycardia, hypotension
- Tachypnoea, shallow tidal volume

>3 h after bite
- Paresis/paralysis of truncal and limb muscles
- Paresis/paralysis of respiratory muscles (respiratory failure)
- Peripheral circulatory failure (shock), hypoxaemia, cyanosis
- Rhabdomyolysis
- Dark urine (due to myoglobinuria or haemoglobin)
- Renal failure

Neurotoxins
- Presynaptic and postsynaptic neuromuscular blockers present in all dangerous venomous snakes. May cause paralysis.
- Postsynaptic blockers readily reversed by antivenom.
- Presynaptic blockers are more difficult to reverse, particularly if treatment is delayed.
- Some presynaptic blockers are also rhabdomyolysins.

Prothrombin activators
- Present in many important species.
- Cause disseminated intravascular coagulation with consumption of clotting factors including fibrinogen.
- Intrinsic fibrin(ogen)lysis generates fibrin(ogen) degradation products.
- Significant risk of haemorrhage.

Anticoagulants
- Present in a relatively small number of dangerous species.
- Prevent blood clotting without consumption of clotting factors.

Rhabdomyolysins
- Some presynaptic neurotoxins also cause lysis of skeletal and cardiac muscle.
- Apart from loss muscle of mass, may cause myoglobinuria and renal failure.

Haemolysins
- Present in a few species.
- Rarely a serious clinical effect.