

### Cardiovascular effects and support

The 'autonomic storm' is usually of short duration but can cause myocardial ischaemia, ECG changes, cardiac dysfunction and myocyte necrosis

- Hypertension- use short-acting agents- esmolol, nitroglycerin, sodium nitroprusside. Longer-acting agents exacerbate subsequent hypotension
- Hypotension- loss of sympathetic outflow is exacerbated by pre-existing hypovolaemia, cardiac dysfunction and polyuria from diabetes insipidus. Aim for MAP >70 mmHg. Noradrenaline or vasopressin are used in most donors in Australia & NZ.
- Arrhythmias can be minimised by normalising  $K^+$ ,  $Mg^{+2}$ , body temperature, blood pressure and fluid management. Standard treatment (e.g. amiodarone, cardioversion) is used for atrial and ventricular arrhythmias
- cardiac arrest- CPR may result in recovery of cardiac function and proceed to successful transplantation (families often support CPR if consented donation can proceed)
- Bradycardia- in a patient without brain function is resistant to vagolytic effects of atropine, so adrenaline, isoprenaline, salbutamol or pacing are recommended

Echocardiography or invasive cardiac function monitoring may be necessary in unstable patients or those for whom cardiac function assessment and optimisation is a high priority.