




Blue dyes used peri-operatively

 <p>Methylene Blue</p> <p>50 mg in 5ml (10mg/ml) 1% solution*</p>	 <p>Patent Blue V</p> <p>50mg in 2ml (25mg/ml) 2.5% solution*</p>	 <p>Indigo Carmine</p> <p>20mg in 5 ml (4mg/ml)*</p>
<p>Actions</p>		
<p>Hastens conversion of ferric iron in haemoglobin to the ferrous form. Potent MAO inhibitor. Restores vascular tone via inhibition of eNOS.</p>	<p>Patent blue binds to serum proteins, which are drained by the lymphatic system. Blue colour delineates vessels from surrounding tissue.</p>	<p>Filtered rapidly by kidneys and turns urine blue allowing visualisation of the urinary tract, approximately 10 minutes after IV administration.</p>
<p>Indications and Dosage</p>		
<ul style="list-style-type: none"> › Methaemoglobinaemia: 1 - 2mg/kg IV over 5-10 minutes, may repeat in 1 hour if necessary. › Sentinel node mapping: 5mg in 5ml sterile water administered S/C once during procedure. › Chromendoscopy: 0.1 - 1% solution directly applied to gastrointestinal mucosa. › Vasoplegia syndrome: 1.5 - 2mg/kg IV over 20-60 minutes administered once. Improvement of vasoplegia observed within 1-2 hours. 	<ul style="list-style-type: none"> › Lymphatic mapping: 50mg (2ml) of Patent Blue V solution is diluted with an equal volume of normal saline and administered S/C. 	<ul style="list-style-type: none"> › Intra-op detection of ureteral injuries: 20mg IV undiluted. › Dilution or administration with other solutions may cause precipitation. › Also used in endoscopic procedures, lymph node and vessel delineation, tumour localisation, and injected into amniotic fluid to test for premature rupture of the membranes.
<p>Route of Administration</p>		
<p>IV or S/C only</p> <ul style="list-style-type: none"> › Monitoring: Pulse, BP, SpO₂; due to risk of hypersensitivity reactions. › Transient false decrease in SpO₂. If in doubt confirm with arterial blood gas sample. › Resuscitation equipment should be available. 	<p>S/C only</p> <ul style="list-style-type: none"> › Monitoring: Pulse, BP, SpO₂ due to risk of hypersensitivity reactions. › Transient false decrease in SpO₂. If in doubt confirm with arterial blood gas sample. › Resuscitation equipment should be available. 	<p>IV or IM only</p> <ul style="list-style-type: none"> › Monitoring: Pulse, BP, SpO₂; due to risk of hypersensitivity reactions. › Transient false decrease in SpO₂. If in doubt confirm with arterial blood gas sample. › Resuscitation equipment should be available.
<p>Precautions</p>		
<ul style="list-style-type: none"> › Patients with G-6-P dehydrogenase deficiency. › Severe hepatic/renal impairment. › Serotonergic drugs. › Contraindicated in pregnancy (Category D) and breastfeeding. 	<ul style="list-style-type: none"> › Contraindicated in pregnancy and breastfeeding. › Hypersensitivity to Patent Blue V or triphenylmethane dyes. 	<ul style="list-style-type: none"> › Use with caution in arterial hypertension and heart failure due to mild pressor effect. › Contraindicated in pregnancy and breastfeeding
<p>Adverse Reactions</p>		
<p>Common: Headache, nausea, feeling hot, sweating, dizziness, syncope and chest discomfort. Blue green urine, sweat and stool.</p> <p>Uncommon: Serotonin syndrome, haemolysis, hypersensitivity reactions.</p>	<p>Common: Nausea, hypotension, muscle tremors. Skin discoloration - may persist for 8 - 10 days.</p> <p>Uncommon: Hypersensitivity reactions - anaphylaxis, bronchospasm, angioedema.</p>	<p>Common: Nausea, vomiting, hypertension, and bradycardia. Skin discoloration after large IV doses in children & underweight patients.</p> <p>Uncommon: Hypersensitivity reactions - rash, puritis, bronchoconstriction, anaphylaxis.</p>

References: Product information, Uptodate, Mims Online

* Images and brands are representative only as ampoule and vial presentation may vary

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