

## MEDICINES STANDARD OPERATING PROCEDURE (MSOP)

### IBUPROFEN (Oral & Suspension)

<b>Name of Medicine:</b>	IBUPROFEN
<b>Procedural Number:</b>	MSOP003
<b>Departments Affected:</b>	Management & Operations
<b>Version:</b>	V1.0
<b>Legal Category of Medicine:</b>	General Sales Licence (GSL)
<b>Staff Grade Authorised to Use:</b>	<input type="checkbox"/> First Aider <input type="checkbox"/> First Responder <input type="checkbox"/> Emergency Care Assistant <input checked="" type="checkbox"/> IHCD Technician <input checked="" type="checkbox"/> Paramedic <input checked="" type="checkbox"/> Nurse <input checked="" type="checkbox"/> Emergency Care Practitioner (Paramedic) <input checked="" type="checkbox"/> Emergency Nurse Practitioner (Nurse)
<b>Review Period:</b>	3 Year
<b>Effective Date</b>	07/07/2018
<b>Review Date</b>	07/07/2021
<b>Category:</b>	<b>CLINICAL MANDATORY</b> No deviation from the procedure
<b>Approved By:</b>	Medical Advisory Clinical Lead Directors

Training and Competency	
<b>Training</b>	<ul style="list-style-type: none"> <li>The staff member must have completed the necessary training in order to administer the above medicine in line with their qualification.</li> <li>The staff member is responsible for keeping his/herself aware of any changes to the recommendations for the medicine listed.</li> <li>It is the responsibility of the individual to keep up-to-date with continued professional development and to work within the limitations of their own individual scope of practice.</li> </ul>
<b>Competency</b>	<ul style="list-style-type: none"> <li>Successful completion of a competency assessment in the use of this medicine for the indications stated.</li> <li>Completion of education in both the legal and professional aspects of medicines administration.</li> </ul>

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Clinical Situation / Requirement	
<b>Clinical Indication</b>	<ol style="list-style-type: none"> <li>1. Relief of mild/moderate pain</li> <li>2. Soft tissue injuries</li> <li>3. Pyrexia</li> </ol> <p>Best when used as part of a balanced analgesic regimen.</p>
<b>Inclusion Criteria</b>	Adults and Children 3 months old and over.
<b>Contra-Indications / Exclusions</b>	<ul style="list-style-type: none"> <li>• Less than 3 months of age</li> <li>• Previous gastro-intestinal (GI) bleeding or ulceration</li> <li>• Previous history of hypersensitivity, including bronchospasm, asthma attacks, angioedema, urticaria or rhinitis precipitated by aspirin or any other non-steroidal anti-inflammatory drug (NSAID)</li> <li>• Coagulation defects Patients taking anticoagulants</li> <li>• Patients taking another NSAID (NB this does not apply to patients taking 75 mg aspirin)</li> <li>• Patients currently taking lithium or methotrexate</li> <li>• Renal transplant patients currently taking immune-suppressants such as ciclosporin or tacrolimus</li> <li>• Patients who have taken mifepristone in the last 12 days</li> <li>• Pregnancy</li> <li>• Known hepatic, renal, cardiac failure</li> </ul>
<b>Cautions</b>	<ul style="list-style-type: none"> <li>• Elderly patients are more likely to experience side effects, especially GI bleeding / perforation.</li> <li>• Patients with hypertension or coronary heart disease: ibuprofen may exacerbate symptoms</li> <li>• Concurrent use with oral corticosteroids or antidepressants (selective serotonin reuptake inhibitors or venlafaxine): increased risk of bleeding</li> <li>• Concurrent use with angiotensin-converting enzyme inhibitors: increased risk of renal impairment &amp; ibuprofen may antagonise hypotensive effect</li> <li>• Oral antidiabetics (Sulfonylureas): may enhance blood glucose lowering effect.</li> <li>• Concurrent use with ciprofloxacin, norfloxacin or other quinolone antibiotics may induce convulsions.</li> <li>• Patients with asthma: bronchospasm may occur</li> <li>• Patients with ulcerative colitis or Crohn's disease: may exacerbate condition</li> </ul>
<b>Side Effects</b>	<b>Common:</b> GI discomfort i.e. nausea, vomiting, indigestion, abdominal pain and diarrhoea

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	<p><b>Occasional:</b> Tinnitus, headache, GI bleeding and ulceration Can worsen asthma in susceptible individuals Hypersensitivity reactions with rashes, bronchospasm, angioedema, anaphylaxis</p> <p><b>Uncommon:</b> fluid retention, dizziness, drowsiness, insomnia, vertigo, hearing disturbances, haematuria, photosensitivity May provoke renal failure in patients with pre existing renal impairment</p> <p><b>Very rare:</b> hepatic damage, alveolitis, pulmonary eosinophilia, pancreatitis, eye changes, Stevens-Johnson syndrome, toxic epidermal necrolysis</p>
<b>Action if Excluded/Contraindicated</b>	Refer to medical practitioner
<b>Action if patient declines</b>	Document as appropriate and refer to medical practitioner




Description of Treatment																																																																																																																																						
Generic Name	Ibuprofen																																																																																																																																					
Presentation	Ibuprofen tablets 200mg & 400 mg Ibuprofen suspension 100mg/5ml																																																																																																																																					
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Dosage & Administration	<p><b>Route: Oral &amp; Suspension</b></p> <table><tr><th>AGE</th><th>INITIAL DOSE</th><th>REPEAT DOSE</th><th>DOSE INTERVAL</th><th>CONCENTRATION</th><th>VOLUME</th><th>MAXIMUM DOSE</th></tr><tr><td>12 years – Adult</td><td>400 milligrams</td><td>400 milligrams</td><td>8 hours</td><td>Various</td><td>Varies</td><td>12 grams per 24 hours</td></tr><tr><td>11 years</td><td>300 milligrams</td><td>300 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>15 ml</td><td>900 milligrams per 24 hours</td></tr><tr><td>10 years</td><td>300 milligrams</td><td>300 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>15 ml</td><td>900 milligrams per 24 hours</td></tr><tr><td>9 years</td><td>200 milligrams</td><td>200 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>10 ml</td><td>600 milligrams per 24 hours</td></tr><tr><td>8 years</td><td>200 milligrams</td><td>200 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>10 ml</td><td>600 milligrams per 24 hours</td></tr><tr><td>7 years</td><td>200 milligrams</td><td>200 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>10 ml</td><td>600 milligrams per 24 hours</td></tr><tr><td>6 years</td><td>150 milligrams</td><td>150 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>7.5 ml</td><td>450 milligrams per 24 hours</td></tr><tr><td>5 years</td><td>150 milligrams</td><td>150 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>7.5 ml</td><td>450 milligrams per 24 hours</td></tr><tr><td>4 years</td><td>150 milligrams</td><td>150 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>7.5 ml</td><td>450 milligrams per 24 hours</td></tr><tr><td>3 years</td><td>100 milligrams</td><td>100 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>5 ml</td><td>300 milligrams per 24 hours</td></tr><tr><td>2 years</td><td>100 milligrams</td><td>100 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>5 ml</td><td>300 milligrams per 24 hours</td></tr><tr><td>18 months</td><td>100 milligrams</td><td>100 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>5 ml</td><td>300 milligrams per 24 hours</td></tr><tr><td>12 months</td><td>100 milligrams</td><td>100 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>5 ml</td><td>300 milligrams per 24 hours</td></tr><tr><td>9 months</td><td>50 milligrams</td><td>50 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>2.5 ml</td><td>150 milligrams per 24 hours</td></tr><tr><td>6 months</td><td>50 milligrams</td><td>50 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>2.5 ml</td><td>150 milligrams per 24 hours</td></tr><tr><td>3 months</td><td>50 milligrams</td><td>50 milligrams</td><td>8 hours</td><td>100 milligrams in 5 ml</td><td>2.5 ml</td><td>150 milligrams per 24 hours</td></tr><tr><td>1 month</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr><tr><td>Birth</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr></table>	AGE	INITIAL DOSE	REPEAT DOSE	DOSE INTERVAL	CONCENTRATION	VOLUME	MAXIMUM DOSE	12 years – Adult	400 milligrams	400 milligrams	8 hours	Various	Varies	12 grams per 24 hours	11 years	300 milligrams	300 milligrams	8 hours	100 milligrams in 5 ml	15 ml	900 milligrams per 24 hours	10 years	300 milligrams	300 milligrams	8 hours	100 milligrams in 5 ml	15 ml	900 milligrams per 24 hours	9 years	200 milligrams	200 milligrams	8 hours	100 milligrams in 5 ml	10 ml	600 milligrams per 24 hours	8 years	200 milligrams	200 milligrams	8 hours	100 milligrams in 5 ml	10 ml	600 milligrams per 24 hours	7 years	200 milligrams	200 milligrams	8 hours	100 milligrams in 5 ml	10 ml	600 milligrams per 24 hours	6 years	150 milligrams	150 milligrams	8 hours	100 milligrams in 5 ml	7.5 ml	450 milligrams per 24 hours	5 years	150 milligrams	150 milligrams	8 hours	100 milligrams in 5 ml	7.5 ml	450 milligrams per 24 hours	4 years	150 milligrams	150 milligrams	8 hours	100 milligrams in 5 ml	7.5 ml	450 milligrams per 24 hours	3 years	100 milligrams	100 milligrams	8 hours	100 milligrams in 5 ml	5 ml	300 milligrams per 24 hours	2 years	100 milligrams	100 milligrams	8 hours	100 milligrams in 5 ml	5 ml	300 milligrams per 24 hours	18 months	100 milligrams	100 milligrams	8 hours	100 milligrams in 5 ml	5 ml	300 milligrams per 24 hours	12 months	100 milligrams	100 milligrams	8 hours	100 milligrams in 5 ml	5 ml	300 milligrams per 24 hours	9 months	50 milligrams	50 milligrams	8 hours	100 milligrams in 5 ml	2.5 ml	150 milligrams per 24 hours	6 months	50 milligrams	50 milligrams	8 hours	100 milligrams in 5 ml	2.5 ml	150 milligrams per 24 hours	3 months	50 milligrams	50 milligrams	8 hours	100 milligrams in 5 ml	2.5 ml	150 milligrams per 24 hours	1 month	N/A	N/A	N/A	N/A	N/A	N/A	Birth	N/A	N/A	N/A	N/A	N/A	N/A
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<b>Further information</b>
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<b>Advice to Patient</b>	<ul style="list-style-type: none"> <li>• Ensure maximum daily dosage is not exceeded.</li> <li>• Doses should be given at least 4 hours apart.</li> <li>• Take with or after food/milk to minimise GI discomfort</li> <li>• Take regularly to prevent pain / reduce inflammation</li> <li>• In children with fever continue dosing for only as long as the child appears distressed.</li> <li>• Do not take any high dose aspirin containing products or other NSAID whilst taking ibuprofen.</li> <li>• Discontinue if side effects develop</li> <li>• Product information leaflet should be given to patient.</li> <li>• If response to appropriate doses of ibuprofen alone is insufficient, consider staggering doses of ibuprofen and paracetamol 2-3 hours apart.</li> </ul>
<b>Records</b>	<p>Complete patient clinical record (PCR/PRF)</p> <p>In the event of a reaction or medicines incident, complete an Incident Report Form (IR1)</p>
<b>Related Documents / Reference</b>	<p>British National Formulary (BNF)</p> <p>UK Ambulance Service Clinical Practice Guidelines</p> <p>The electronic Medicines Compendium (eMC)</p>

<b>Authorised By:</b>			
<b>Name:</b>	<b>Title:</b>	<b>Signature</b>	<b>Date:</b>
Daniel Ruscoe	Clinical Director & Clinical Lead		07/07/2018
Jack Squires	Operations Director		07/07/2018
Dr Arihant Jain	Medical Advisor		07/07/2018

This Medicines Standard Operating Procedure must be signed by the Clinical Lead, Clinical Operations Director and Medical Advisor to be valid.

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