**Medicine Guideline**

# Aspirin Intravenous in Neurointerventional Procedures and Intensive Care Areas

Health
South Eastern Sydney
Local Health District

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| **Areas where Protocol/Guideline applicable** | Medical Imaging, Intensive Care Units (ICU) and High Dependency Units (HDU) areas |
| **Authorised Prescribers:** | Neurointerventionalists, ICU Consultants<br>Other prescribers under the supervision of an ICU Consultant or Neurointerventionalist |
| **Indication for use** | Anti-platelet therapy |
| **SAS medicine** | IV Aspirin is an unapproved medicine in Australia and supplied under the Special Access Scheme (SAS). SAS form must be submitted and informed consent for use obtained. |
| **Clinical condition** | 1. Intra-operative treatment of platelet aggregation/ intravascular thrombus<br>2. Patients requiring ultra-rapid platelet blockade e.g., hyperacute carotid stent blockade.<br>3. Urgent requirement for aspirin for anti-platelet therapy in patients without nasogastric access who are not suitable for oral administration, including patients who cannot swallow safely. This includes patients with acute ischaemic stroke, arterial dissection, acute myocardial infarction, and endovascular stent placement with bare metal or drug eluting stents. |
| **Proposed Place in Therapy** | First-line |
| **Adjunctive Therapy** | Commonly used with other antiplatelet agents such as ticagrelor or clopidogrel depending on clinical condition<br>Intraprocedurally other agents such as heparin and tirofiban may be used. |
| **Contra-indications** | Allergy to aspirin or excipients (amino acetic acid) or hypersensitivity to NSAIDs<br>Aspirin-sensitive asthma<br>Severe active bleeding or disease states with an increased risk of severe bleeding, e.g., bleeding disorders, erosive gastritis or peptic ulcer disease, severe hepatic disease. |
| **Precautions** | • Risk of bleeding<br>• Other drugs that can affect the clotting process may increase the risk of bleeding; avoid combinations or monitor closely.<br>• Spinal anaesthesia or lumbar puncture<br>• Seek specialist advice before considering intrathecal or epidural analgesia or anaesthesia, or lumbar puncture (risk of epidural haematoma, which may cause paralysis).<br>• Renal - use with caution in severe impairment because of increased risk of bleeding and of further deterioration of renal function.<br>• Elderly - >75 years old taking aspirin have an increased risk of major bleeding (especially upper GI) which can be fatal: consider prophylaxis with a Proton Pump Inhibitor (see prevention in NSAID-induced ulcers) |

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| **Important Drug Interactions** | NSAIDs - Increased risk of gastric ulceration.<br>NSAIDS - non-selective NSAIDs may reduce the antiplatelet activity of low-dose aspirin and may reduce or negate its cardioprotective effect.<br>Anticoagulants - Combination increases risk of bleeding |
| **Dosage** | Intraprocedurally: 250 to 500mg IV stat<br><br>Maintenance: 100mg IV daily or as directed by interventional neuroradiology team |
| **Duration of therapy** | Until oral or nasogastric aspirin can be safely initiated. It is considered safe to use the same dose when switching between IV and oral aspirin formulations. |
| **Prescribing Instructions** | IV Aspirin must be prescribed on the eMR or eRIC. In the absence of eMM systems, the appropriate paper medication chart may be used. |
| **Administration Instructions** | **IV injection**: inject over 30 seconds.<br><br>**IV infusion:** Reconstitute ONE 500mg vial with supplied **5mL** diluent (=100mg/mL) (Aspegic®). Then dilute the required volume of the resulting solution in 100mL sodium chloride 0.9% and give by IV infusion over 20 minutes.<br>The reconstituted solution is for single use only and unused solution must be discarded. Aspegic® reconstituted and infusion solution must be used immediately.<br>Supplied diluent contains water for injection and amino acetic acid. If supplied 5mL diluent unavailable, 5mL water for injection can be used for reconstitution.<br>Compatible fluids: Sodium chloride 0.9%, Glucose 5%, Hartmann's. |
| **Monitoring requirements** | Usual ICU/procedural observations (as appropriate), including neuro-observations.<br>Signs of bleeding Hypersensitivity reactions. |
| **Management of Complications** | Management of anaphylaxis<br>Management of bleeding<br>If evaluation of platelet function is deemed important after administration of intravenous aspirin (Due to occurrence of bleeding, or to evaluate the efficacy), a multiplate platelet assay may be considered at the discretion of the treating physician. Please call the haematology lab if multiplate assay is required. |
| **Basis of Protocol/Guideline:** | • Aspegic® Product Information<br>• IV Aspirin Product Information<br>• Australian Medicines Handbook, Last modified by AMH: July 2023<br>• International Stroke Trial Collaborative Group, The International Stroke Trial (IST): a randomised trial of aspirin, subcutaneous heparin, both, or neither among 19 435 patients with acute ischaemic stroke, The |

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| | Lancet, 1997, Vol 349.<br>• Society of Hospital Pharmacists of Australia, Australian Injectable Drugs Handbook, 9th Edition, 2023<br>• Schoergenhofer C, Hobl EL et. al. Acetylsalicylic acid in critically ill patients: a cross-sectional and a randomized trial, Eur J Clin Invest 2017; 47 (7): 504–512 |
| **Groups consulted in development of this guideline** | ICU Department, POWH<br>Pharmacy Department, POWH<br>Neurosurgery Department, POWH,<br>INR Department, POWH |

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| **GOVERNANCE** | |
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