

Paediatric Cardiology

Aspirin and Clopidogrel Guideline

Staff relevant to:	Medical & Nursing staff working within EMCHC
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Reviewed by:	Vicky Worthy (Pharmacist), Dr Suhair Shebani (CPG lead)
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1. Introduction and Who Guideline applies to:

Congenital cardiac surgery in children often requires the use of prosthetic material, e.g. PTFE, Dacron, Bovine pericardium, porcine pericardium, CorMatrix, for repair by means of patches, conduits, and valves. All foreign material has a degree of thrombogenicity.

In the immediate post-operative period following congenital heart surgery, an optimal balance is needed between the risk of bleeding from the surgical site, and the risk of unwanted thrombosis.

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2. Guideline Standards and Procedures

2.1 Aspirin for mono anti-platelet therapy

For aspirin anti-platelet we usually use 5mg/kg/day capped at 75mg. The eMeds dose sentence is built as per BNFC 1-5mg/kg/day.

It is important to ensure patient is taking full feeds prior to commencing aspirin. Gastro protection is not usually required, however patients considered at high risk of GI bleeding should take a PPI alongside aspirin and/or clopidogrel.

Contraindications – Active peptic ulceration; bleeding disorders; children under 16 years (risk of Reye’s syndrome – analgesic dose); haemophilia; previous peptic ulceration (analgesic dose); severe cardiac failure (analgesic dose)

Contra-indications, further information

Reye’s syndrome

Owing to an association with Reye’s syndrome, manufacturer advises aspirin-containing preparations should not be given to children under 16 years at an analgesic dose, unless specifically indicated, e.g. for Kawasaki disease.

Side effects-

General side-effects:

Rare or very rare : Asthmatic attack; bronchospasm

Specific side-effects:

Common or very common with oral use : Dyspepsia; haemorrhage

Uncommon with oral use : Dyspnoea; rhinitis; severe cutaneous adverse reactions (SCARs); skin reactions

Rare or very rare with oral use: Aplastic anaemia; erythema nodosum; gastrointestinal haemorrhage (severe); granulocytosis; haemorrhagic vasculitis; intracranial haemorrhage; menorrhagia; nausea; thrombocytopenia; vomiting

Frequency not known with oral use: Fluid retention; gastrointestinal disorders; headache; hearing loss; hepatic failure; hyperuricaemia; iron deficiency anaemia; renal impairment; sodium retention; tinnitus; vertigo

2.2 Dual anti-platelet therapy

Aspirin and clopidogrel are used as dual anti-platelet therapy following procedures such as BT shunt/central shunt, Norwood Sano, PDA stent.

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Aspirin – as mentioned above

Clopidogrel – Anti-thrombotic therapy in paediatric cardiology patients

Enterally,

2 years & under: 0.2mg/kg OD

Over 2 years: 1-1.5mg/kg once daily (maximum dose 75mg daily)

Contraindications : active bleeding

Side effects:

Common or very common: Diarrhoea; gastrointestinal discomfort; haemorrhage; skin reactions

Uncommon: Constipation; dizziness; eosinophilia; gastrointestinal disorders; headache; intracranial haemorrhage; leukopenia; nausea; paraesthesia; thrombocytopenia; vomiting

Rare or very rare: Acquired haemophilia; agranulocytosis; anaemia; angioedema; arthralgia; arthritis; bone marrow disorders; confusion; fever; glomerulonephritis; gynaecomastia; hallucination; hepatic disorders; hypersensitivity; hypotension; myalgia; neutropenia; pancreatitis; respiratory disorders; severe cutaneous adverse reactions (SCARs); stomatitis; taste altered; ulcerative colitis; vasculitis; vertigo; wound haemorrhage

Frequency not known: Kounis syndrome

3 Education and Training

None

4 Monitoring Compliance

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting arrangements
Prescribing errors	Reported via datix	Specialist Pharmacist/Ward Sister	Six monthly	CPM

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5 **Supporting References**

1. [https://uhltrnhsuk.sharepoint.com/teams/PAGL/pagdocuments/Blalock-Taussig%20\(BT\)%20Shunt%20or%20Central%20Shunt%20UHL%20Paediatric%20Intensive%20Care%20Guideline.pdf#search=blalock%20Dtaussig%20shunt](https://uhltrnhsuk.sharepoint.com/teams/PAGL/pagdocuments/Blalock-Taussig%20(BT)%20Shunt%20or%20Central%20Shunt%20UHL%20Paediatric%20Intensive%20Care%20Guideline.pdf#search=blalock%20Dtaussig%20shunt)
2. <https://uhltrnhsuk.sharepoint.com/teams/PAGL/pagdocuments/Thromboprophylaxis%20Post%20Congenital%20Heart%20Surgery%20UHL%20Childrens%20Intensive%20Care%20Guideline.pdf#search=blalock%20Dtaussig%20shunt>
3. [BNFC \(British National Formulary for Children\) | NICE](#)
4. Paediatric Formulary – South East London Paediatric Formulary. Guys and St Thomas' NHS Foundation Trust

Key Words:

Aspirin, Clopidogrel, Children's Cardiology,

The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.

As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

CONTACT AND REVIEW DETAILS	
Guideline Lead (Name and Title): Dr S Shebani Paediatric cardiologist	Executive Lead: Chief Medical Officer
REVIEW RECORD	
Description Of Changes (If Any)	

Title: Aspirin & Clopidogrel

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