CLINICAL GUIDELINE

Rapid Aspirin Desensitisation in Patients with ACS

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

Version Number:	2
Does this version include changes to clinical advice:	No
Date Approved:	2nd August 2024
Date of Next Review:	31st December 2026
Lead Author:	Bik Yun Chai & Katarzyna Nowak
Approval Group:	Area Drug & Therapeutics: Safer Use of Medicines Committee Sub-group

Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Rapid Aspirin Desensitisation in Adult Patients with Acute Coronary Syndrome treated in cardiology units

APPLICABILITY

This guidance outlines the process of aspirin desensitisation for NHS GGC cardiology patients with previous aspirin allergy and requiring aspirin following the diagnosis of acute coronary syndrome (ACS). Aspirin desensitisation should be undertaken in cardiology units with cardiac monitoring and staff trained in Immediate Life Support. ***The protocol should not be used outside specialist cardiology units.***

Pre-treatment

A full history of the reaction experienced should be obtained when evaluating patients with a suspected sensitivity. Due to the potential risks involved, desensitisation is not performed in patients with a history of aspirin induced anaphylaxis, airway obstructive angioedema, severe asthma exacerbation due to NSAIDs and chronic idiopathic urticaria. Aspirin desensitisation must only be initiated under the instruction of a consultant cardiologist. Written consent should be obtained from the patient after full explanation of the process and risks (standard consent form should be used for this purpose). Additionally, information about the treatment should be clearly documented in case notes with details of the recommending consultant.

Prescribing

Choose **HEMPA protocol for "*Aspirin Desensitisation*"** and ensure premedication with cetirizine 10mg is prescribed and administrated 1 hour prior to treatment. Fill out **"*Prescribing Chart for Aspirin Desensitisation*"**, which is enclosed to this document.

Treatment

Commence Aspirin at 1mg and titrate as per *"Prescribing Chart for Aspirin Desensitisation".*
A record of observations should be made in the patient notes and NEWS2 chart (temperature, blood pressure, pulse, respiratory rate, oxygen saturations). A NEWS2 score should be taken at baseline prior to desensitisation and then every 15 minutes until 60 minutes after the procedure is completed. After this, observations should be taken in accordance with usual ward practice. Patients should be monitored carefully for potential adverse reactions including: *rhinorrhoea, nasal congestion and ocular tearing; cutaneous reactions such as itching and rash; bronchoconstriction symptoms of wheezing and dyspnoea or severe reactions such as angioedema or anaphylaxis*.

Prepared by Bik Yun Chai (Pharmacist GRI), Reviewed by Katarzyna Nowak (Pharmacist QEUH)
Approved by: NHS GG&C Cardiology MCN, NHS GG&C ADTC SUM Subcommittee. Date of next review: December 2026

Management of non-severe reactions: *(e.g. itch, rhinitis, mild cough, watery and itchy eyes)*

1. Stop treatment.
2. Record vital parameters and notify medical staff.
3. Check pre-medication has been administered. Administer supportive treatment as per *"Prescribing Chart for Aspirin Desensitisation*".
4. Once patient is stabilised, re-challenge treatment with the same dose of Aspirin.
5. If the patient develops a further reaction, stop treatment and contact Consultant Cardiologist/ Senior Cardiology Registrar.

Management of severe reactions: *(e.g. wheezing, severe breathlessness, severe rash, compromised haemodynamic stability)*

1. Stop treatment.
2. Record vital parameters and notify Consultant Cardiologist/ Senior Cardiology Registrar immediately.
3. Check pre-medication has been administered. Administer supportive treatment as per *"Prescribing Chart for Aspirin Desensitisation".*
4. Do not re-challenge the treatment.

Post-treatment

After desensitisation has been completed, patients should be prescribed aspirin 75mg once daily from the following day. Update HEMPA accordingly as *HEPMA Aspirin Protocol* will cover only the period of desensitisation treatment. Patients admitted electively for this procedure should stay overnight and receive a dose of aspirin the following morning prior to discharge. It is vital that no doses are missed and patients have been counselled on the importance of compliance as sensitivity to aspirin can return within days if doses are missed (48-72hrs). Patient who have been desensitised should not stop taking their aspirin unless discussed with a cardiologist. In the event of treatment interruption longer than 48-72hrs, desensitisation may be required once again.

Add the following HEPMA note (to be retained between episodes): *Patient with previous aspirin allergy, desensitisation protocol completed on … Ensure medication compliance as aspirin sensitivity may return within days if doses are missed. In the event of treatment interruption longer than 48-72hrs, desensitisation may be required again.*

The outcome of the desensitisation should be clearly documented in the discharge letter. Emergency Care Summary and GP records should be updated accordingly in primary care. Allergy status should reflect previous aspirin allergy and completed desensitisation due to potential risk for allergic reaction in case of treatment interruption.

Prepared by Bik Yun Chai (Pharmacist GRI), Reviewed by Katarzyna Nowak (Pharmacist QEUH)
Approved by: NHS GG&C Cardiology MCN, NHS GG&C ADTC SUM Subcommittee. Date of next review: December 2026

Prescribing Chart for Aspirin Desensitisation (oral route only) - *to be concurrently prescribed on HEPMA as "Aspirin Desensitisation Protocol" PRN*

Insert patient identification label here or complete the following: **Patient name: …….** **CHI: ……**	**Ward:**	**Date of Administration:**
		Time Commenced:

Preparation Method: Dissolve a 75mg dispersible aspirin tablet in 75mls of drinking water in a pot to create a 1mg/mL solution. Aspirin solution should have a patient identification label attached and labelled as "Aspirin 75mg in 75mls of water". Due to limited information on aspirin stability, prepare fresh solution for each new dose. An appropriately sized oral syringe should be used to administer doses up to and including 40mg (maximum available oral syringe is 50mls). A different syringe should be used for each dose. After the dose is administered, the syringe should be flushed with additional 5-10mls of water and this volume also administered to ensure the total dose has been given.

If a reaction occurs, the supervising physician should be informed immediately and symptomatic treatment administered as below.

For non-severe reactions, resume desensitisation once the patient is stable and provoking dose should be repeated until no reaction occurs.

Time from start	Aspirin (1mg/mL)	Time due	Given by:	Observations checked by:
0 minutes	1mg (1mL)			
30 minutes	4mg (4mL)			
60 minutes	10mg (10mL)			
90 minutes	20mg (20mL)			
120 minutes	40mg (40mL)			
The next two doses may be administered as aspirin 75mg tablets				
150 minutes	75mg			
180 minutes	150mg			

ENSURE THAT THE FOLLOWING PREMEDICATION AND SYMPTOMATIC TREATMENTS ARE AVAILABLE AND PRESCRIBED AS "ASPIRIN DESENSITISATION" PROTOCOL:

Premedication to be given 1 hour prior to procedure:
Cetirizine (PO) 10mg as once-off dose

Symptomatic treatments prescribed as PRNs:

- Chlorphenamine: 10mg IV (max 40mg in 24 hours)
- Salbutamol: 2.5mg nebuliser (max four doses in 24 hours)
- Adrenaline: 1:1000 (1 mg/mL) injections - 500micrograms IM - dose to be repeated after 5minutes, if needed

Medications for anaphylaxis are available in the arrest trolley in the event of a severe systemic reaction.

Consultant's Signature ……	Date……

Prepared by Bik Yun Chai (Pharmacist GRI), Reviewed by Katarzyna Nowak (Pharmacist QEUH)
Approved by: NHS GG&C Cardiology MCN, NHS GG&C ADTC SUM Subcommittee. Date of next review: December 2026

References:

1) Bianco M et al. *Efficacy and Safety of Available Protocols for Aspirin Hypersensitivity for Patients Undergoing Percutaneous Coronary Intervention*. A Survey and Systematic Review. Pharmacology. Circulation - Cardiovascular Interventions. 2016;9:e002896.
2) Rossini R et al. *Aspirin Desensitization in Patients with Coronary Artery Disease*. Circulation - Cardiovascular Interventions. 2017;10:e004368.
3) Fajt ML, Petrov AA. *Outpatient aspirin desensitization for patients with aspirin hypersensitivity and cardiac disease*. Critical Pathways in Cardiology: A Journal of Evidence-Based Medicine 2011;10:17-21.
4) Stevens WW et al. *The role of aspirin desensitization followed by oral aspirin therapy in managing patients with aspirin-exacerbated respiratory disease: A Work Group Report from the Rhinitis, Rhinosinusitis and Ocular Allergy Committee of the American Academy of Allergy, Asthma & Immunology*. Journal of Allergy and Clinical Immunology, Volume 147, Issue 3, 827 - 844.
5) Bakar SK, Niazi S. Stability of aspirin in different media. J Pharm Sci 1983;72:1024-1026.

Prepared by Bik Yun Chai (Pharmacist GRI), Reviewed by Katarzyna Nowak (Pharmacist QEUH)
Approved by: NHS GG&C Cardiology MCN, NHS GG&C ADTC SUM Subcommittee. Date of next review: December 2026