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Guideline for treatment and management of intracerebral haemorrhage

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Introduction

This guideline covers the treatment and management protocols for patients who are admitted with intracerebral haemorrhage, including patients who are on anticoagulation, who require neurosurgery referral and who require IV blood pressure management.

This guideline is for use by the following staff groups:

Stroke directorate team (consultants, registrars, advanced clinical practitioners, clinical nurse specialists)

Extended to ED team where needed.

Lead Clinician(s)

Dr Girish Muddegowda

Lead Stroke Consultant

Approved by Stroke Governance on:

18th October 2024

Approved by Medicines Safety Committee on:

11th November 2024

Review Date:

11th November 2027

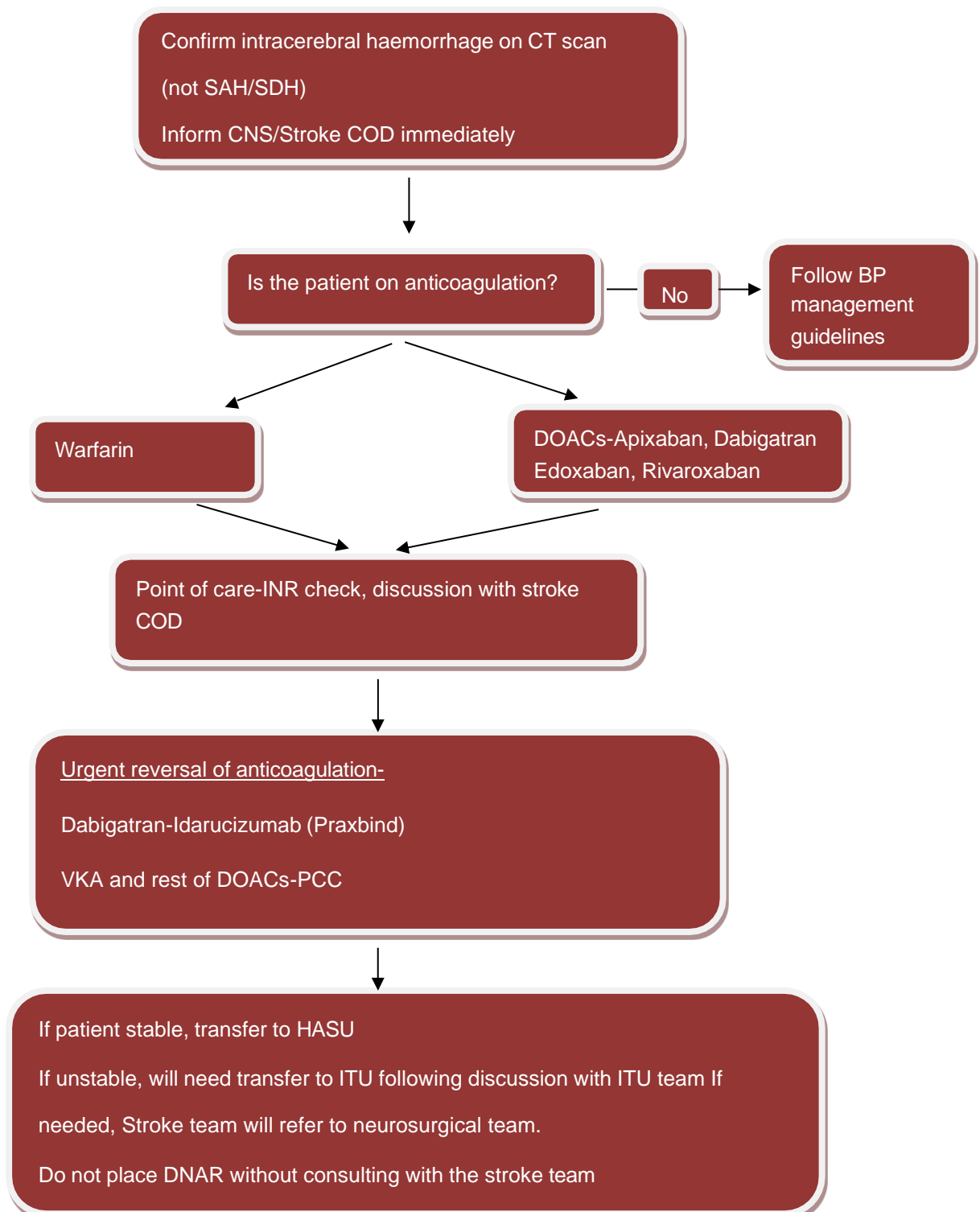
This is the most current document and should be used until a revised version is in place

Key amendments to this guideline

| Date | Amendment | Approved by: |
|--------------|---|-----------------------------------|
| October 2024 | Implementation of flow charts which outline treatment and management of patients diagnosed with intracerebral haemorrhages who may be on anticoagulation, require referral to neurosurgery, and/or require IV blood pressure management | Dr G Muddegowda and Mohima Akhtar |

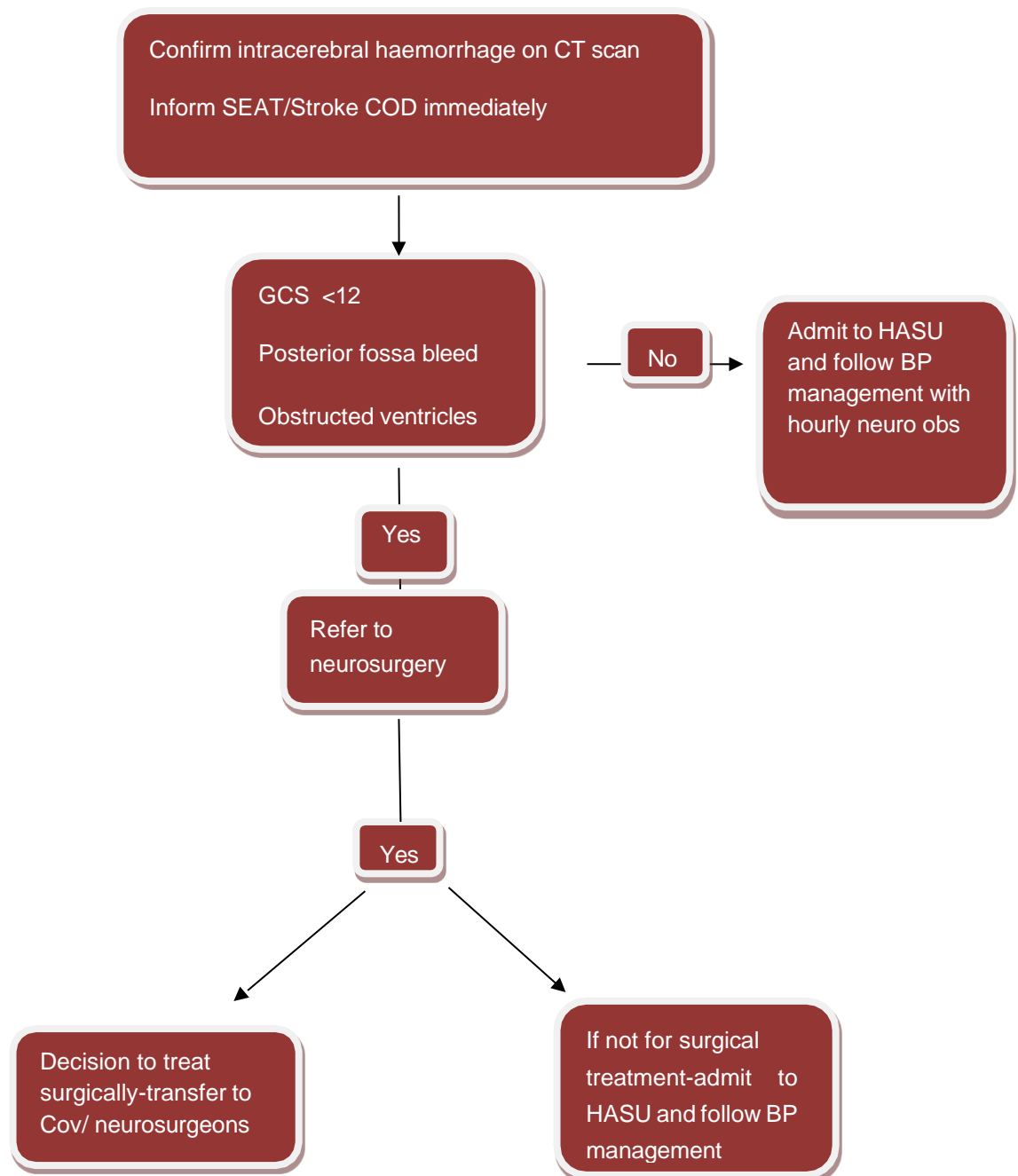
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WAHT Guidelines-intracerebral haemorrhage (with anticoagulation)



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Guidelines for Referral to Neurosurgery



Blood pressure management in ICH

A. Acute treatment target

| | |
|---------------------|------------------------|
| Start treatment if- | SBP >150 mmHg |
| Lower SBP to- | 140 mmHg within 1 hour |

B. Anti-hypertensive treatment –IV GTN: 0 to 30 minutes

1. Start GTN infusion (1mg/ml) at 1.5 ml/hr rate
2. Increase rate by 1 ml/hr every 5 mins to achieve SBP 140 mmHg
3. Once target achieved continue infusion and titrate as necessary
4. If SBP drops < 130 mmHg, stop GTN infusion-continue BP monitoring every 5 mins for the first hour and every hour for the first 24 hrs
5. Restart GTN at the same rate if SBP > 150 in first 24 hrs, titrate at rate of 1 ml/hr to achieve target SBP

If target SBP not achieved by above method within 30 mins, proceed to **C**

C. IV Labetalol– 30 to 60 minutes

1. Exclude any contraindications for Labetalol (asthma, HR <60, decompensated cardiac failure, pheochromocytoma). Caution in COPD and concomitant use in diltiazem or digoxin.
2. Continue GTN infusion simultaneously (*maximum 13.5ml/hr*)
3. Administer bolus dose of 10 mg Labetalol, monitor BP and HR for 10 mins-target SBP 140
4. If target SBP not achieved and HR >60, administer second bolus dose of Labetalol 10 mg, monitor BP and HR for 10 mins
5. If target SBP not achieved administer third bolus dose of 10 mg Labetalol, monitor BP and HR continuously.

A&E/ICH pathway WRH v2 02/03/23- Created with permission Dr. A P Jones (Salford Royal)/ Dr. G Muddegowda, Stroke consultant

Contraindicated (asthma, HR <60, decompensated cardiac failure, phaeochromocytoma). Caution in COPD and concomitant use in diltiazem or digoxin.

DO NOT GIVE IF PATIENT HAS BEEN ADMINISTERED VERAPAMIL IN THE LAST 48hrs

If target SBP not achieved by above method within 60 mins, proceed to **D**

D. Referral to ITU for invasive BP monitoring and treatment

E. Maintenance

1. Management during first 24 hrs-**hourly BP monitoring**
 - Continue/restart IV GTN if SBP above target (see step A)
 - Commence oral/NGT treatment as soon as possible.
2. Management after 24 hrs-Target SBP 130 mmHg for all patients
 - Aim to wean IV antihypertensives within 48 hrs

A&E/ICH pathway WRH v2 02/03/23- Created with permission Dr. A P Jones (Salford Royal)/
 Dr. G Muddegowda, Stroke consultant

Blood pressure monitoring chart

(First hour once infusion commenced)

NAME:

Hosp

No:.....

| DATE / TIME | Time point | BLOOD PRESSURE/ | DRUG (mL/hr or dose) |
|-------------|------------|-----------------|-------------------------|
| | Start | | GTN 1.5 mL/hr |
| | 5 minutes | | GTN mL/hr |
| | 10 minutes | | GTN mL/hr |
| | 15 minutes | | GTN mL/hr |
| | 20 minutes | | GTN mL/hr |
| | 25 minutes | | GTN mL/hr |
| | 30 minutes | | GTN mL/hr |
| | | | LABETALOL 10mg |
| | 35 minutes | | GTN mL/hr |
| | 40 minutes | | GTN mL/hr |
| | | | LABETALOL 10mg |
| | 45 minutes | | GTN mL/hr |
| | 50 minutes | | GTN mL/hr |
| | | | LABETALOL 10mg |
| | 55 minutes | | GTN mL/hr |
| | 60 minutes | | GTN mL/hr |
| | | | LABETALOL 10 mg |

Monitoring

| Page/ Section of Key Document | Key control: | Checks to be carried out to confirm compliance with the Policy: | How often the check will be carried out: | Responsible for carrying out the check: | Results of check reported to: <i>(Responsible for also ensuring actions are developed to address any areas of non-compliance)</i> | Frequency of reporting: |
|--|---|---|--|---|--|-------------------------|
| | WHAT? | HOW? | WHEN? | WHO? | WHERE? | WHEN? |
| | Appropriate treatment and management of ICH | Available management on intranet In house stroke team aware of guideline to use 24/7 | 3 times a year/every quarter | Lead Consultant | Lead consultant and Stroke directorate | Yearly |

WAHT-MED-025

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References

[National-Clinical-Guideline-for-Stroke-2023.pdf](#)

Contribution List

Contribution List

This key document has been circulated to the following individuals for consultation;

| Designation |
|---|
| Dr Girish Muddegowda – Stroke Consultant and Lead |
| Mohima Akhtar – Lead Pharmacist for Stroke & Thrombosis |

This key document has been circulated to the chair(s) of the following committee's / groups for comments;

| Committee |
|-----------------------------|
| Stroke Governance Committee |
| Medicines Safety Committee |

WAHT-MED-025

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Supporting Document 1 - Equality Impact Assessment Tool

. To be completed by the key document author and included as an appendix to key document when submitted to the appropriate committee for consideration and approval.

Please complete assessment form on next page;

Herefordshire & Worcestershire STP - Equality Impact Assessment (EIA) Form
Please read EIA guidelines when completing this form

Section 1 - Name of Organisation (please tick)

| | | | | | |
|--|---|-------------------------------|--|----------------------|--|
| Herefordshire & Worcestershire STP | | Herefordshire Council | | Herefordshire CCG | |
| Worcestershire Acute Hospitals NHS Trust | X | Worcestershire County Council | | Worcestershire CCGs | |
| Worcestershire Health and Care NHS Trust | | Wye Valley NHS Trust | | Other (please state) | |

| | |
|----------------------------------|------------------------|
| Name of Lead for Activity | Dr G Muddegowda |
|----------------------------------|------------------------|

| | | | |
|--|-------------------|---------------------------------------|------------------------|
| Details of individuals completing this assessment | Name | Job title | e-mail contact |
| | Mohima Akhtar | Lead Pharmacist – Stroke & Thrombosis | Mohima.akhtar1@nhs.net |
| | | | |
| | | | |
| Date assessment completed | 18/11/2024 | | |

Section 2

| | | | | |
|--|---|---|---|-------------------------------------|
| Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.) | This guideline covers the treatment and management protocols for patients who are admitted with intracerebral haemorrhage, including patients who are on anticoagulation, who require neurosurgery referral and who require IV blood pressure management. | | | |
| What is the aim, purpose and/or intended outcomes of this Activity? | Intracerebral haemorrhage management by stroke team | | | |
| Who will be affected by the development & implementation of this activity? | X <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Service User Patient Carers Visitors | X <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Staff Communities Other _____ |
| Is this: | X Review of an existing activity <input type="checkbox"/> New activity | | | |

| | |
|---|--|
| | <input type="checkbox"/> Planning to withdraw or reduce a service, activity or presence? |
| What information and evidence have you reviewed to help inform this assessment? (Please name sources, eg demographic information for patients / services / staff groups affected, complaints etc. | Current practice National stroke guidelines |
| Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required) | Current practice formalised into flowsheets. |
| Summary of relevant findings | |

Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. **Please tick one or more impact box below for each Equality Group and explain your rationale.**

Please note it is possible for the potential impact to be both positive and negative within the same equality group and this should be recorded. Remember to consider the impact on e.g. staff, public, patients, carers etc. in these equality groups.

| Equality Group | Potential <u>positive</u> impact | Potential <u>neutral</u> impact | Potential <u>negative</u> impact | Please explain your reasons for any potential positive, neutral or negative impact identified |
|---|----------------------------------|---------------------------------|----------------------------------|---|
| Age | | X | | |
| Disability | | X | | |
| Gender Reassignment | | X | | |
| Marriage & Civil Partnerships | | X | | |
| Pregnancy & Maternity | | X | | |
| Race including Traveling Communities | | X | | |
| Religion & Belief | | X | | |
| Sex | | X | | |
| Sexual Orientation | | X | | |
| Other Vulnerable and Disadvantaged Groups (e.g. carers; care leavers; homeless; | | X | | |

| Equality Group | Potential <u>positive</u> impact | Potential <u>neutral</u> impact | Potential <u>negative</u> impact | Please explain your reasons for any potential positive, neutral or negative impact identified |
|--|----------------------------------|---------------------------------|----------------------------------|---|
| Social/Economic deprivation, travelling communities etc.) | | | | |
| Health Inequalities (any preventable, unfair & unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies) | | X | | |

Section 4

| What actions will you take to mitigate any potential negative impacts? | Risk identified | Actions required to reduce / eliminate negative impact | Who will lead on the action? | Timeframe |
|--|-----------------|--|------------------------------|-----------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| How will you monitor these actions? | | | | |
| When will you review this EIA? (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation) | | | | |

Section 5 - Please read and agree to the following Equality Statement

1. Equality Statement

1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9 protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation

1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.

1.3. All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer's etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

| | |
|--|---------------|
| Signature of person completing EIA | Mohima Akhtar |
| Date signed | 18/11/2024 |
| Comments: | |
| Signature of person the Leader Person for this activity | |
| Date signed | |
| Comments: | |



Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

| | Title of document: | Yes/No |
|-----------|--|---------------|
| 1. | Does the implementation of this document require any additional Capital resources | No |
| 2. | Does the implementation of this document require additional revenue | No |
| 3. | Does the implementation of this document require additional manpower | No |
| 4. | Does the implementation of this document release any manpower costs through a change in practice | No |
| 5. | Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff | No |
| | Other comments: | |

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval.