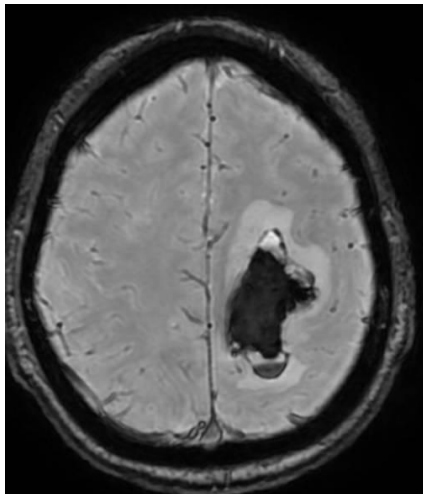




AVC
Normandie

Prise en charge médicale des hématomes intra parenchymateux en 2026



18 juin 2026

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CHU rouen





Guideline

**EUROPEAN
STROKE JOURNAL**

European Stroke Organisation (ESO) and European Association of Neurosurgical Societies (EANS) guideline on stroke due to spontaneous intracerebral haemorrhage

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Introduction

- 20 à 30% des AVC
- Plus de 40% des décès liés aux AVC
- 20 millions par an dans le monde pour environ 3 millions de décès
- Risque de dépendance et démence élevée
- 40% surviennent sous antithrombotiques (25% aap, 15% anticoagulants)



Introduction

- Incidence évolue peu (projection +6% d'ici 2050)
- Diminution de l'incidence avant 60 ans (contrôle HTA) mais augmentation de l'incidence après 75 ans (Angiopathie amyloïde, antithrombotiques)
- 5 principaux facteurs de risque: HTA, IMC élevée, pollution atmosphérique, diabète et tabac



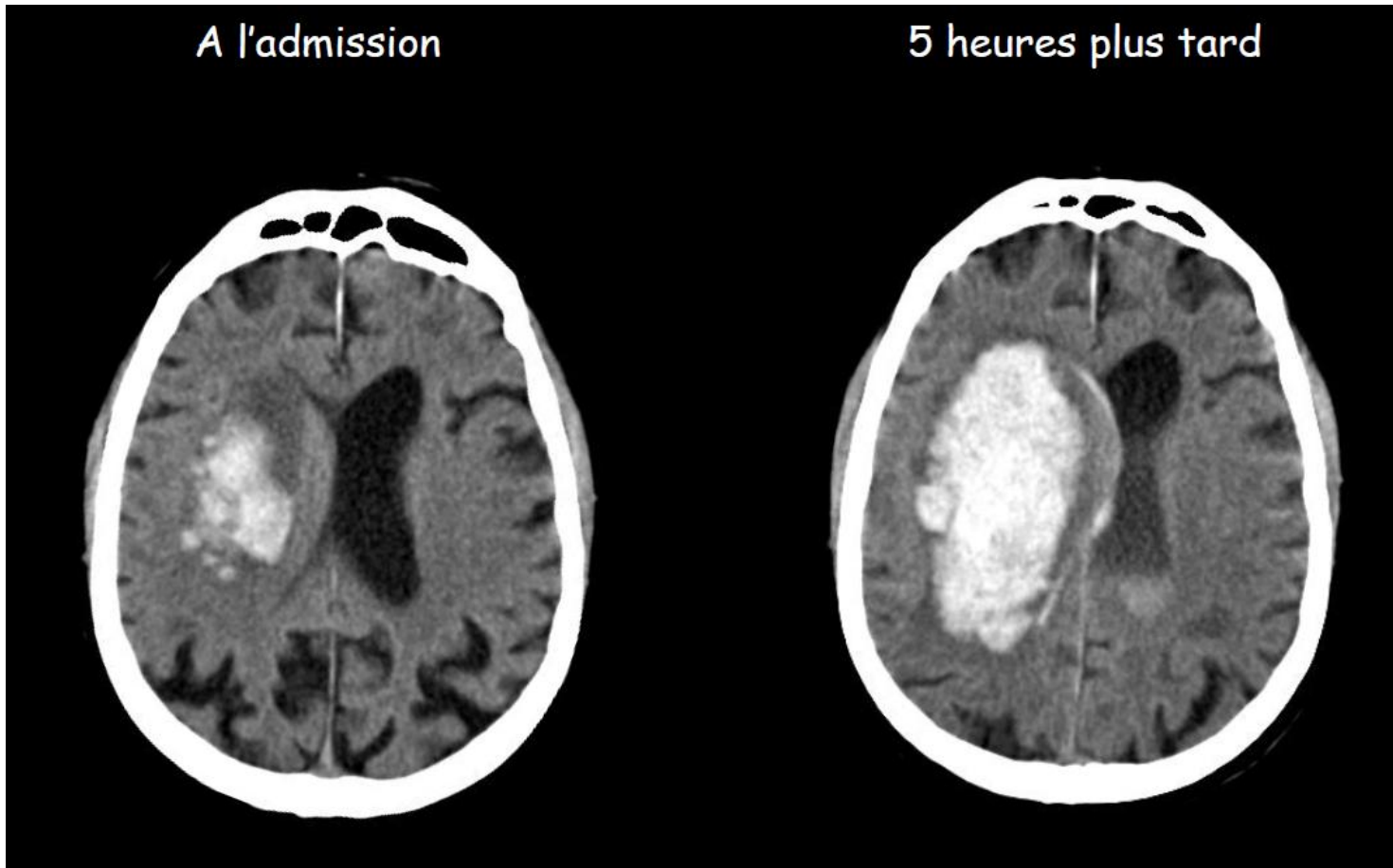
Introduction

- Profonds: principale cause: micro angiopathie cérébrale hypertensive, diabétique, OH...
- Lobaires: Angiopathie amyloïde cérébrale mais aussi TVC, MAV, fistule, autre...





Evolution



Un des principaux facteurs de dégradation:
resaignement ou expansion de l'hématome



Comment éviter risque d'expansion/récidive?

- Hospitaliser le patient dans une unité adaptée et surveillance adaptée
- Maitriser la pression artérielle
- Agir sur l'hémostase





Hospitaliser le patient dans une unité adaptée

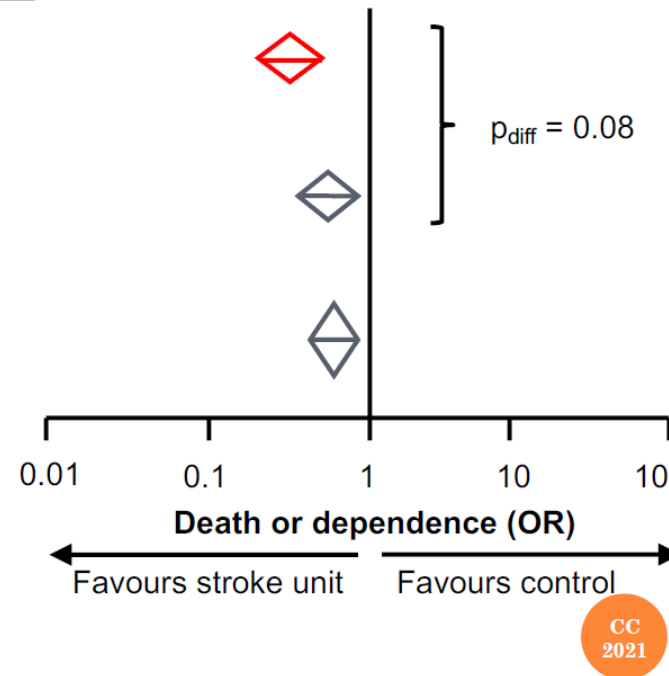
UNITÉ NEUROVASCULAIRE

Stroke type	RCTs	Patients
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ICH	8	428
OR 0.37 (95% CI 0.21-0.66), I ² =16%		

Ischaemic stroke	8	2,229
OR 0.67 (95% CI 0.48-0.93), I ² =67%		

All stroke	8	2,657
OR 0.57 (95% CI 0.42-0.79), I ² =61%		



Bénéfice des UNV encore plus important pour AVC hémorragique qu'ischémique

Evidence-based Recommendation

In adults with spontaneous ICH, not requiring intensive care treatment, we recommend admission to an organised stroke unit to reduce the risk of death or dependence.

Quality of evidence: Moderate ⊕⊕⊕

Strength of recommendation: Strong for intervention ↑↑



Maîtriser la pression artérielle

- Diminution de 10 mmhg de la pression artérielle systolique

→ augmentation de 10% de la probabilité de meilleur pronostic fonctionnel
- Pas d'agent spécifique (NICARDIPINE, URAPYDIL, autre...)
- Quelle cible?



Maîtriser la pression artérielle

Expert consensus statements

We suggest lowering systolic blood pressure below 140mmHg within 6 h of symptom onset in minor or moderate ICH (haematoma volume < 30mL) to reduce haematoma expansion.

For adults with spontaneous ICH, we suggest avoiding a reduction in systolic blood pressure of more than 70mmHg from baseline and to avoid active reduction of systolic blood pressure below 110mmHg. Caution is advised when lowering very high systolic blood pressure (>220mmHg), for patients with large haematoma volumes (>30mL) or when there is planned haematoma evacuation.

For adults with spontaneous minor or moderate ICH (haematoma volume < 30mL), we suggest applying the following aspects:

Initiating antihypertensive treatment as early as possible, ideally within the first 2h following the onset of symptoms (**acute phase**):

- Lower systolic blood pressure to <140mmHg and minimise variability in blood pressure fluctuations.

After lowering systolic blood pressure below the target threshold (up to 7 days, **sub-acute phase**):

- Maintain systolic blood pressure below 140mmHg.

For **secondary prevention** (after sub-acute phase)

- Follow the recommendations on secondary prevention, specifically section Blood pressure on blood pressure management.

Vote: 15/15

Prise en charge rapide « door to target », idéalement dans les 2h du début des symptômes, objectif à atteindre rapidement

Diminution de 70 à 110 mmHg (pas plus)

Objectif <140/90 mmHg et éviter variabilité

Diminution plus prudente chez patient avec TA > 220mmHg systolique et hématome de grand volume





Traitements hémostatiques

Patients sous antithrombotiques: AVK

- Pas d'indication au plasma frais congelé

Expert consensus statement

In adults with ICH associated with use of vitamin K-antagonists (VKA), we suggest using 4-factor PCC dosages in the range from 30 to 50 IU/kg if $INR \geq 2.0$ and 10 IU/kg if INR is 1.3–1.9 combined with use of intravenous vitamin K (10mg) to normalise and prevent subsequent increase of INR.

Vote: 15/15



PPSB+vitamine K

Traitements hémostatiques

Patients sous antithrombotiques: AOD

Dabigatran:



Expert consensus statement

In adults with anticoagulant-associated ICH associated with use of direct thrombin inhibitor (dabigatran) we suggest the immediate use of idarucizumab (2×2.5 g intravenously) to normalize the dTT (diluted thrombin time) and the ECT (ecarin clotting time).

Vote: 15/15

IDARUCI
ZUMAB



Traitements hémostatiques

Patients sous antithrombotiques: AOD

Anti X (Eliquis et Xarelto)

Evidence-based Recommendation

For adults with spontaneous ICH associated with factor Xa-inhibitor use there is uncertainty about the balance of beneficial and adverse effects of PCC, so we recommend recruitment to further randomised controlled trials.

Quality of evidence: Very low ⊕

Strength of recommendation: -

Expert consensus statement

For adults with spontaneous ICH associated with factor Xa-inhibitor use PCC may be considered, but clinicians should carefully consider the balance between its unknown benefit for reducing haematoma expansion and poor clinical outcome, and the potential increase in thromboembolic events.

Vote: 15/15

Expert consensus statement

In adults with spontaneous ICH associated with use of certain factor Xa-inhibitors (apixaban or rivaroxaban) within 15 h after the last dose of a factor Xa-inhibitor (or proven factor Anti-FXa activity > 100 ng/mL) and within 12 h since onset of symptoms we suggest considering the use of andexanet alfa to reduce haematoma expansion. The potential clinical benefit should be evaluated in sufficiently powered randomised controlled trials.

Vote: 14/15

PPSB

Andexanet alpha?



Traitements hémostatiques

Patients sous antithrombotiques: anti agrégants plaquettaire

Transfusion plaquettaire?

Majoration du risque de décès ou dépendance à 90 jours

Pas de diminution du risque d'expansion de l'hématome

Evidence-based Recommendation

In adults with spontaneous ICH associated with antiplatelet drug use we suggest against the use of platelet transfusion.

Quality of evidence: Moderate ⊕⊕⊕

Strength of recommendation: Weak against intervention ↓?





Traitements hémostatiques

Patients sous antithrombotiques: anti agrégants plaquettaire

Desmopressine?

1 seule étude incluant 54 patients

Pas de différence significative

Trop peu de données

Nécessité d'autres études

Evidence-based Recommendation

In adults with spontaneous ICH associated with antiplatelet drug use, there is uncertainty about the beneficial and adverse effects of desmopressin, so we recommend inclusion in ongoing randomised controlled trials.

Quality of evidence: Very low ⊕

Strength of recommendation: -



Traitements hémostatiques



Traitements hémostatiques sans antithrombotiques?

Acide Tranexamique?

Etudes publiées: tendance pour l'instant non significative sur décès à 7j et extension de l'hématome à 24h

Sans majoration du risque thrombotique

Prise en charge trop tardive et inclusion d'hématomes trop sévères?

Etude TICH-3 en cours

Evidence-based Recommendation

For adults with spontaneous ICH not associated with antithrombotic drug use, there is uncertainty about the balance of clinical benefits (functional outcome, death and dependence) and adverse effects of tranexamic acid. Therefore, we recommend recruitment to ongoing randomised controlled trials.

Quality of evidence: Low ⊕⊕

Strength of recommendation: –



Thromboprophylaxie

Evidence-based Recommendation

In immobile adults with spontaneous ICH, we suggest for intermittent pneumatic compression stockings for 30 days (or hospital discharge or independent ambulation, if sooner) to prevent proximal deep vein thrombosis. Continued uncertainty exists whether intermittent pneumatic compression reduces symptomatic pulmonary embolism and death.

Quality of evidence: Very low ⊕

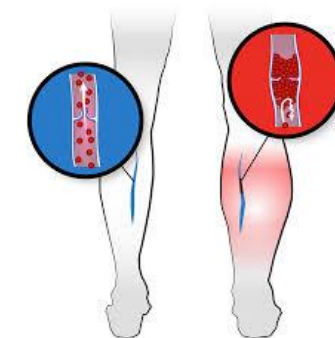
Strength of recommendation: Weak for intervention ↑?

Evidence-based Recommendation

In adults with spontaneous ICH, there is uncertainty whether subcutaneous low-molecular-weight heparins (LMWH) at prophylactic doses starting as early as 24h after ICH onset and established stability of the ICH prevent venous thromboembolism, symptomatic deep vein thrombosis (DVT), pulmonary embolism (PE), or death, without increasing the risk of recurrent ICH, so we recommend recruitment to randomised controlled trials.

Quality of evidence: Very low ⊕

Strength of recommendation: -



Contentions pneumatiques à favoriser

HBPM si non disponibles; selon patients, pas avant 24h

Expert consensus statement:

Low-molecular-weight heparins (LMWH) prophylaxis after ICH might be used for venous thromboembolism prevention in standard clinical practice if intermittent pneumatic compression is not available or feasible. The use should be limited to immobile patients, as well as patients at high prothrombotic risk (due to comorbidities, or prothrombotic medications).

Vote: 15/15





Traitements anti inflammatoires



Evidence-based Recommendation

In adults with acute spontaneous ICH, we recommend against using anti-inflammatory interventions (in particular, anakinra, celecoxib, citicoline, corticosteroids, deferoxamine, edaravone, fingolimod, minocycline, panax notoginseng or reactive oxygen species scavengers) to reduce death, morbidity or perihæmatomal oedema, outside of randomised controlled trials.

Quality of evidence: Very low ⊕

Strength of recommendation: Strong against intervention ↓↓

Pas de bénéfice
Aucune place dans la prise
en charge des hématomes
intra parenchymateux



Traitements anti épileptiques

Evidence-based Recommendation

In adults with spontaneous ICH, we suggest against treatment with anti-seizure medications for the primary prevention of acute/remote symptomatic epileptic seizures

Quality of evidence: Moderate ⊕⊕⊕

Strength of recommendation: Weak against intervention ↓?

In adults with spontaneous supratentorial ICH and symptomatic seizure within 7 days after onset, we cannot make a recommendation about the use of anti-seizure medications because there is continued uncertainty about their effects.

Quality of evidence: Very low ⊕

Strength of recommendation: -

Expert consensus statement

In adults with spontaneous ICH, in whom anti-seizure medication was initiated after symptomatic seizure(s) during the first 7 days after ICH onset, and in whom no further seizures occur, we suggest anti-seizure treatment to be discontinued from 4 weeks onwards.

Vote: 15/15



Pas systématiquement

En cas de crise précoce(<7j) sans
récidive, arrêt à 1 mois



Contrôle des ACSOS

Expert consensus statement:

We recommend implementing the components of the care bundle influencing our recommendation, which were:

- (1) **early intensive blood pressure management** with the goal of achieving a target systolic blood pressure of less than 140 mmHg in minor to moderate ICH within 1 h of the initiation of treatment (see also PICO 2 for details);
- (2) **control of elevated blood glucose** (target 110–141 mg/dL (6.1–7.8 mmol/L) without diabetes/141–180 mg/dL (7.8–10 mmol/L) with diabetes; avoiding hypoglycaemia) as soon as possible after the initiation of treatment;
- (3) **treatment of pyrexia** with the goal of achieving a body temperature of less than 37.5°C within 1 h of initiation; and

Contrôle
glycémie et
température





Autres avis d'expert

We suggest **additional components** of other care bundles that may be beneficial:

- **avoiding do-not-resuscitate orders** within the first 24h after admission unless there is a clear will of the patient
- application of routine **dysphagia screening and treatment**
- **early consulting of a neurosurgeon** to evaluate surgical measures in patients such as with large spontaneous ICH, intraventricular bleeding, or space-occupying infratentorial haemorrhage.



Eviter étiqueter « non réanimatoire » dans les 24 premières heures

Prévention secondaire

Expert consensus statement

We suggest blood pressure control to a target value of $\leq 130/80$ mmHg in patients surviving ICH as a means to reduce the risk of subsequent stroke.

Vote: 15/15

Objectif TA $\leq 130/80$ mmhg sur le long terme





Reprise anti agrégants et statines

Evidence-based Recommendation

In adults with spontaneous ICH who were taking antiplatelet therapy before the event, we suggest restarting antiplatelet therapy for a licensed indication is safe, but overall effects are uncertain.

Quality of evidence: Moderate ⊕⊕⊕

Strength of recommendation: Weak for intervention ? ↑

Expert consensus statement

In adults with a history of ICH and an indication for statin use, we suggest initiating statin treatment over no use of statin therapy in patients with high cardiovascular risk in primary as well a secondary prevention after evaluation of the individual risk-benefit profile.

Vote: 15/15

Arrêt anti agrégants en prévention primaire

Possible reprise en prévention secondaire (délai, imagerie de contrôle?)

Statine ok





Reprise d'un traitement anticoagulant

Evidence-based Recommendation

In adults with spontaneous ICH and non-valvular atrial fibrillation (NVAF), there is uncertainty about the net benefit of long-term oral anticoagulation (OAC) to reduce the risk of major adverse cardiovascular events and death or dependence compared with the avoidance of OAC, so we encourage recruitment to randomised controlled trials.

Quality of evidence: Low ⊕⊕

Strength of recommendation: -

Expert consensus statement

Direct oral anticoagulant (DOAC) treatment after ICH in patients with non-valvular atrial fibrillation (NVAF) seems to increase the risk of recurrent ICH, but reduces the overall risk of major adverse cardiovascular events, so DOAC may be considered after careful evaluation of the individual risk-benefit profile.

Vote: 14/15

Reprise possible mais rapport
bénéfice risque à adapter à chaque
patient
Etiologie? HTA contrôlée? Risque
embolique?



Fermeture d'auricule?

Evidence-based Recommendation

In adults with a history of prior ICH and non-valvular atrial fibrillation (NVAF), there is uncertainty about the effects of left atrial appendage occlusion (LAAO) compared to long-term anticoagulation for the prevention of thromboembolic events, and we encourage enrolment in randomised controlled trials.

Quality of evidence: Very low ⊕

Strength of recommendation: -

Expert consensus statement:

A: Left atrial appendage occlusion (LAAO) may be considered as a means to reduce thromboembolic events in adults with prior ICH and non-valvular atrial fibrillation (NVAF), who are considered unsuitable for long-term OAC therapy (e.g. people with imaging or pathological evidence of cerebral amyloid angiopathy), and we encourage enrolment of these patients in randomised controlled trials.

Vote: 15/15

B: We suggest periprocedural antithrombotic treatment according to the recommendation provided by the European Society of Cardiology.

Vote: 15/15

Watchman (Boston Scientific™)



Bénéfice pas clairement démontré

Mais probablement utile chez patient avec contre-indication définitive aux anticoagulants (Angiopathie Amyloïde)

Ne pas oublier la nécessité d'introduire un ttt anti agrégant après la mise en place de la prothèse



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Merci pour votre attention