

TXA: timing and regimen

Adults with active/suspected major traumatic bleeding; time from injury.

≤3 h; 1 g IV over ≥10 min → 1 g IV over 8 h.

Give early; Chinese R33 states at least eight hours for maintenance, European R23 eight hours.

Beyond three hours, not routine; only with viscoelastic hyperfibrinolysis evidence and senior/local-policy review; avoid known fibrinolytic shutdown.

Follow institutional policy; check population, stage and source.

Follow local product, preparation and infusion policy; avoid rapid IV push.

Chinese shock2023

European bleeding2023

NICE NG39

Adult bleeding: BP target

Early adult bleeding before control, without brain/spinal injury.

SBP 80–90 mmHg.

Caution with older age/chronic hypertension; separate pediatric/pregnancy protocols.

If targets fail, consider norepinephrine (European R14); Chinese R28 considers it in life-threatening MAP below 50 or SBP below 70, alongside blood/control rather than replacing them.

Follow institutional policy; check population, stage and source.

Chinese R22 / European R13 support conditional use, not a universal target.

Chinese shock2023

European bleeding2023

Shock index

Adult risk recognition, with examination and trends.

SI at least one or pulse pressure below 30 mmHg (Chinese R2)

Chinese Table 2: SI at least 1.0/1.5/2.0 roughly associates with 20–30%/30–50%/50–70% loss; beta blockers, age and athletic physiology confound it, so not precise volume.

Blunted HR or apparently normal older-adult vitals do not exclude shock.

Follow institutional policy; check population, stage and source.

European R5 uses SI and/or pulse pressure for shock/transfusion assessment; integrate mechanism, consciousness, perfusion, lactate and response.

Chinese shock2023

European bleeding2023

MTP activation assessment

Adults; ACS TQIP example.

ABC ≥ 2 + clinical state.

Penetrating torso injury, positive FAST, HR at least 120 and SBP at most 90 each score one; ABC at least two triggers assessment; verify local boundaries.

Blood already required in the bay and operative/interventional control are TQIP triggers; consider ongoing bleeding/response without waiting for 24-hour 10-unit totals.

Initial plasma:platelets:RBC 1:1:1–1:1:2 (Chinese R27), then early goal-directed therapy. Domestic RBC units generally derive from 200 mL whole blood and differ from overseas units; convert platelet therapeutic amounts with the blood bank.

Follow institutional blood-bank policy; check population, stage and source.

Initial plasma:platelets:RBC 1:1:1–1:1:2 (Chinese R27), then early goal-directed therapy. Domestic RBC units generally derive from 200 mL whole blood and differ from overseas units; convert platelet therapeutic amounts with the blood bank. Follow institutional policy.

ACS TQIP massive transfusion guidance

Chinese shock 2023

NHC clinical blood use technical standard (2025)

Fibrinogen

Major active bleeding or viscoelastic evidence of functional deficit.

Clauss Fib ≤ 1.5 g/L + major bleeding.

European R29 initial fibrinogen concentrate about 3–4 g, or cryoprecipitate by measured local content per unit; domestic and overseas units differ, so do not copy 15–20 units directly; recheck.

Ongoing bleeding/worsening tests: blood-bank/coagulation escalation.

Follow institutional blood-bank policy; check population, stage and source.

Chinese perioperative consensus uses <1.5 for cryo in severe oozing and <1.5 – 2.0 for fibrinogen; scope/operators differ.

European bleeding 2023

Chinese perioperative

Hb target during transfusion

European R16 target for adult trauma requiring RBC transfusion.

Hb 70–90 g/L.

Use bleeding/perfusion/trajectory; normal early Hb does not exclude hemorrhage.

TBI, myocardial ischemia and special populations need specific goals; do not await Hb fall.

Follow institutional blood-bank policy; check population, stage and source.

Chinese 2025 blood-use standard requires individual assessment/response review, not a national 70–90 target.

European bleeding2023

NHC clinical blood use technical standard (2025)

Ionized calcium

Adult major bleeding, especially massive transfusion.

iCa at least 1.00 mmol/L (Chinese); European normal 1.1–1.3 mmol/L.

Measure iCa at transfusion start; 10 mL of 10% calcium chloride contains about 270 mg elemental calcium, versus about 90 mg in 10% calcium gluconate.

Verify concentration/access and recheck.

Ongoing transfusion, falling iCa or rhythm changes: prompt reassessment.

Follow institutional blood-bank policy; check population, stage and source.

European R31 prefers calcium chloride for hypocalcemia; this compares elemental content rather than interchangeable volume prescriptions. Distinguish the Chinese lower target from European normal range.

European bleeding 2023

Chinese perioperative

Severe TBI: perfusion target

Severe TBI (GCS ≤ 8); avoid permissive hypotension.

MAP ≥ 80 mmHg.

For GCS 9–15 within three hours, discuss TXA by CRASH-3 scope; TBI bleeding platelet goal above $100 \times 10^9/L$ (European R30); VHA-guided traumatic-ICH correction (NCS/SCCM2026).

Changing consciousness/pupils or unmet goals: address oxygenation/perfusion and escalate neurological care.

Follow institutional policy; check population, stage and source.

CRASH-3 enrolled GCS at most 12 or CT-confirmed intracranial bleeding without major extracranial hemorrhage; subgroup benefit is not universal TBI benefit.

Chinese shock2023

Chinese prehospital2026

European bleeding2023

CRASH-3

NCS/SCCM2026

Older adults: occult shock warning

Older-trauma high-risk triage signal, not a stand-alone shock diagnosis.

Age ≥ 65 ; SBP < 110 mmHg.

At least 65 years with SBP below 110 or HR above SBP raises concern; anticoagulated head injury escalates assessment even with apparently normal signs.

Low-energy injury with symptoms, anticoagulation or poor perfusion: early senior review.

Follow institutional policy; check population, stage and source.

The 110 signal comes from prehospital consensus; hip guidance is a domestic orthopedic pathway entry.

Chinese prehospital2026

NHC geriatric hip fracture care and management guideline (2022)

Anticoagulants: reversal pathway

Life-threatening/uncontrolled bleeding or urgent high-risk surgery; authorized team decisions.

Life-threatening bleeding: drug, last dose, INR/renal function/anti-Xa.

Warfarin: 4F-PCC 25–50 IU/kg by INR plus vitamin K1 5–10 mg slow IV; available 4F-PCC preferred to FFP. Dabigatran: idarucizumab 5 g IV. Xa agents: consider 4F-PCC 25–50 IU/kg; 2026 ICH conditional guidance favors 4F-PCC.

US andexanet sales have ceased; conditional EU/UK availability requires benefit/thrombosis/cost review. Traumatic antiplatelet-associated ICH has no uniform platelet-transfusion recommendation; do not use automatically.

Follow institutional policy; check population, stage and source.

Check three/four-factor products, units, registration and availability; use local alternatives if 4F is unavailable without equating FFP with 4F-PCC. Shared decisions and thrombosis monitoring apply. Pay particular attention to early thrombosis within 72 hours after andexanet.

Chinese shock 2023

Chinese perioperative

European bleeding 2023

FDA 2025

ACEP 2026

NCS/SCCM 2026

BSH 2026

Pregnancy trauma: maternal/obstetric care

Positioning: uterus at/above umbilicus; anti-D: unsensitised RhD-negative abdominal/major trauma, by gestation.

Mother first; left uterine displacement; Rh D.

Unsensitised RhD-negative woman with abdominal/major trauma: give anti-D within 72 h without waiting for test results. 12+0–19+6 weeks: at least 250 IU, no FMH test needed; $\geq 20+0$ weeks: at least 500 IU plus FMH quantification (Kleihauer or flow cytometry) to decide additional doses. Check local anti-D availability and formulation.

At ≥ 20 weeks use manual uterine displacement or left tilt 15–30°; test HCG when appropriate (Chinese R20); escalate maternal instability or fetal concern jointly.

Follow institutional policy; check population, stage and source.

BCSH pathway: 250 IU at 12+0–19+6 weeks; 500 IU plus FMH at $\geq 20+0$ weeks. Queensland trauma guidance separately recommends KB from 13+0 weeks in RhD-negative women. Keep these pathways distinct and agree one local obstetric/transfusion protocol. BCSH publisher full text was inaccessible; doses were checked against public NHS implementation. No equivalent Chinese clauses were verified.

Queensland pregnancy

Chinese shock2023

BCSH anti-D 2014

NHS anti-D pathway

Pregnancy arrest: resuscitative delivery

Fundus at/above umbilicus (approximately at least 20 weeks), no ROSC with standard resuscitation; skilled team.

Prepare at arrest recognition; goal delivery by ≤ 5 min.

AHA 2025: organize obstetric/anesthetic/neonatal teams and resuscitative delivery at the arrest site.

Four-minute initiation/five-minute birth remains the AHA 2025 timing goal; call/prepare at arrest recognition, perform on site; benefit may remain beyond five minutes, so do not abandon solely for delay; address traumatic causes.

Follow institutional policy; check population, stage and source.

Four/five-minute timing does not justify waiting four minutes to call, prepare equipment or neonatal rescue; maternal resuscitation and delivery preparation are parallel.

AHA 2025

Queensland pregnancy

Children: weight and first aliquot

RCH major pediatric trauma with poor circulation; assess bleeding in parallel.

Measured/recent weight; crystalloid 10 mL/kg.

Suspected bleeding with compromise: small initial resuscitation aliquots and early blood; RCH initial TXA 15 mg/kg, with maximum/rate checked in the pediatric product protocol.

Reassess each aliquot; ongoing hemorrhage needs blood-bank/pediatric MTP, avoiding repeated large crystalloids.

Follow institutional pediatric policy; check population, stage and source.

Chinese major-hemorrhage component regimen is on the next card; routine RBC table excludes emergency major bleeding.

RCH: major pediatric trauma primary survey

WS/T795—2022

Children: Chinese hemorrhagic transfusion index

WS/T795—2022 §9.5.2.2: pediatric traumatic hemorrhagic shock.

RBC : FFP = 1 : 1 (volume)

Standard example: RBC 20 mL/kg + FFP 20 mL/kg; not routine anemia/non-trauma ratio.

With cumulative RBC above 40 mL/kg, consider platelets 15–20 mL/kg and cryo 10 mL/kg; adjust to Hb above 80 g/L, Fib above 1.5 g/L, APTT/PT below 1.5 times reference midpoint and PLT above $75 \times 10^9/L$; monitor overload.

Follow institutional blood-bank policy; check population, stage and source.

A component-volume regimen, at a different stage from RCH initial aliquots; check product/local pediatric policy.

WS/T795—2022

Pediatric interpretation 2025

Burns: Chinese rule of nines

Head/face/neck; both arms; trunk including perineum; both legs including buttocks/feet.

Adult: $9 + 18 + 27 + 46 = 100\%$.

Under 12: head/neck= $9+(12-\text{age})\%$; both legs= $46-(12-\text{age})\%$.

IV resuscitation assessment: adult partial/full-thickness over 15%, child over 5%, elder over 10% or full-thickness over 5%; inhalation injury/physiology may independently escalate.

Follow institutional burn-service policy; check population, stage and source.

2025 standard Table 1 / §2.1; fluid-formula area uses second/third degree, excluding superficial burns.

NHC burns2025

Burns: Chinese adult fluid formula

Chinese 2025 crystalloid/colloid formula; second/third degree; enter percentage number.

First 24 h: $1.5-2 \text{ mL} \times \text{kg} \times \% \text{TBSA} + 2000 \text{ mL}$.

Crystalloid:colloid=1-2:1; half estimated total in first eight hours from injury, quarters in next two intervals.

Urine 0.5-1 mL/(kg·h), 1-2 for electrical/crush/hemolytic chemical injury; second-day crystalloid/colloid half first-day actual amount, maintenance unchanged; allocate maintenance per burn service.

Follow institutional burn-service policy; check population, stage and source.

1.5 is the lower end, not a fixed universal amount; include prior fluids and follow local burn policy.

NHC burns2025

Resuscitation, consent and handover records

Only when urgent rescue prevented timely writing; not permission to delay all records.

Truthful, marked supplementation ≤ 6 h after rescue ends.

Minute-level time, actions, responses, staff, communication and handover ownership.

Record signing difficulties and use lawful emergency authorization; never fabricate signatures/times.

Follow institutional policy; check population, stage and source.

Record norms Article 22(8), 25/27; transfusion consent also follows 2025 blood-use standards.

Basic norms for medical record writing (2010)

NHC clinical blood use technical standard (2025)

Trauma bay: before arrival

Tiered recall; resident key-step simulation requires supervision and local policy.

Roles: head / chest / circulation / recorder.

Confirm space, monitors, blood bank and senior support.

Handover: mechanism, findings, actions, unknowns.

Escalate immediate threats or inadequate resources.

Follow institutional policy; check population, stage and source.

WHO trauma care checklist and team handover

Chinese prehospital2026

xABCDE: revisit each cycle

Tiered recall; resident key-step simulation requires supervision and local policy.

x bleeding → A airway/protection → B breathing → C circulation → D neurology → E exposure/warmth.

Specific findings + trends + owner.

Check effect after actions; revisit unknown regions.

Deterioration: return to primary survey and escalate.

Follow institutional policy; check population, stage and source.

Chinese prehospital2026

NICE NG39

Pelvis: parallel risk recognition

Tiered recall; resident key-step simulation requires supervision and local policy.

WSES: SBP below 90 or maintained by ongoing fluids/blood/vasopressors; BD over 6, SI over 1 or 4–6 RBC units in 24 hours also indicate risk. Do not directly convert national component units.

Center the binder at greater trochanters/symphysis level; knees together and internal leg rotation when associated injuries allow. Avoid repeated springing. Coordinate blood, warming, TXA and other-source checks.

Binder→arterial bleeding without laparotomy need: AE; laparotomy/rapid control need: preperitoneal packing plus external fixation. Zone III REBOA is a skilled-team bridge in extreme instability with suspected pelvic source, not a mandatory final step.

Follow institutional policy; check population, stage and source.

WSES pelvic 2017

NICE NG37

European bleeding 2023

Chinese shock 2023

Care chain: continuity at transitions

Tiered recall; resident key-step simulation requires supervision and local policy.

Confirm destination capability and owner.

Hand over knowns / unknowns / concerns / next review.

Before movement check monitoring, airway, bleeding, equipment.

Bottleneck or patient change: reassess destination.

Follow institutional policy; check population, stage and source.

WHO trauma care checklist and team handover

Chinese prehospital2026

Disaster: patient and system review

Tiered recall; resident key-step simulation requires supervision and local policy.

Walking initially green; apnea after airway opening black; RR over 30, absent radial pulse/CRT over two seconds, or inability to obey commands red; otherwise yellow. Reassess initial tags.

ERBP2012: early pre-extrication saline, adult 1000 mL/h/child 15–20 mL/kg/h; after two hours adult at most 500/child about 10 mL/kg/h or lower. Do not mechanically apply to bleeding/TBI/cardiac-renal failure.

Primary pressure wave (lung/ear/hollow organs), secondary fragments, tertiary displacement, quaternary burns/inhalation/crush. Lung signs may appear up to 48 hours; isolated eardrum rupture neither measures nor excludes serious injury.

Follow institutional policy; check population, stage and source.

START adult/HHS

JumpSTART pediatric/HHS

SALT/MUCC/HHS

Chinese medical-rescue plan 2006

ERBP crush 2012

Resuscitation: parallel tasks

Tiered recall; resident key-step simulation requires supervision and local policy.

Hemorrhage control and resource coordination.

Early TXA / blood / coagulation monitoring.

Warmth, iCa, perfusion and response checks.

See separate adult/TBI numerical cards.

Follow institutional policy; check population, stage and source.

Chinese shock2023

European bleeding2023

Secondary / tertiary: prevent missed injury

Tiered recall; resident key-step simulation requires supervision and local policy.

After stabilization: AMPLE + head-to-toe exam.

Mark unassessed regions, pending imaging and limits.

Repeat exam, reconcile final reports, assign ownership.

New symptoms/deterioration: xABCDE review without waiting.

Follow institutional policy; check population, stage and source.

RCH secondary survey

WHO trauma care checklist and team handover

Special populations: identify group

Tiered recall; resident key-step simulation requires supervision and local policy.

Older adults: anticoagulation, serious low-energy injury, baseline.

Children: weight, age, blood protocol.

Pregnancy: mother first, obstetric collaboration.

Burns: depth, Chinese rule of nines, specialist review.

Follow institutional policy; check population, stage and source.

Chinese prehospital²⁰²⁶

WS/T795—2022

NHC burns²⁰²⁵

Queensland pregnancy

Handover: record and accept

Tiered recall; resident key-step simulation requires supervision and local policy.

Findings/time; actions/response.

Unknowns and review deadlines.

Communication / consent / receiver confirmation.

See record card for six-hour rescue supplementation.

Follow institutional policy; check population, stage and source.

Basic norms for medical record writing (2010)

NHC clinical blood use technical standard (2025)

Pelvic MDT case: staged debrief

Tiered recall; resident key-step simulation requires supervision and local policy.

Early IV antibiotics; NICE open-fracture goal within one hour. Protect perineal wounds/document contamination; trained digital rectal assessment when rectal injury suspected, proctoscopy if positive.

Debridement/packing and blood resuscitation proceed together. Fecal diversion or suprapubic drainage depends on rectal/urinary injury, not routine for everyone. Proposed teaching pathways are not documented performed care.

Do not create a plausible real trajectory when original vitals/Hb/lactate/BE are missing. Any simulation must be distinctly synthetic.

Follow institutional policy; check population, stage and source.

WSES pelvic 2017

NICE NG37

Chinese shock2023

Skills: decision to reassessment

Tiered recall; resident key-step simulation requires supervision and local policy.

Timing → preparation/authorization → key steps.

Effect checks → failure recognition → escalation.

0 absent / 1 after prompting / 2 complete independently.

Supervised simulation; scores do not authorize practice.

Follow institutional policy; check population, stage and source.

NICE NG39

TBI: neurology with ABC

Tiered recall; resident key-step simulation requires supervision and local policy.

Severe TBI: SBP at least 100 at 50–69 years, at least 110 at 15–49 or over 70; Chinese MAP at least 80 mmHg. CPP60–70, treat ICP over 22; BTF pressure evidence LevelIII, ICP/ CPP LevelIIB.

Chinese SpO₂ floor90%, ideally over 95%; ACS target at least 94%. Without intracranial hypertension, PaCO₂/PetCO₂ reference35–45 mmHg; shock invalidates assuming EtCO₂ equals arterial CO₂.

Chinese recommendation 22: within three hours, 1 g slow IV over ten minutes, then 1 g over at least eight hours. NICE: age at least 16, GCS at most 12, no active extracranial bleeding: consider a single 2 g IV dose within two hours, before imaging.

Follow institutional policy; check population, stage and source.

Chinese adult TBI2025

BTF severe TBI4

NICE NG232

Chest: bilateral comparison

Tiered recall; resident key-step simulation requires supervision and local policy.

Adults: fourth/fifth interspace just anterior to midaxillary line; second interspace midclavicular alternative. Children: second midclavicular. At least 8 cm, 14G/10G is an adult TCCC equipment reference; adjust to anatomy/device.

Immediate chest-tube output >1500 mL, >200 mL/h for 2–4 h (this site uses WSES 3 h for teaching), or persistent hemodynamic instability: immediate thoracic surgical evaluation/operation; do not delay for the time threshold.

Pneumothorax 8.5–24 Fr; EAST conditionally supports 14 Fr or smaller pigtailed in stable hemothorax, while WSES-AAST favors 28–40 Fr for larger hemothorax. Unstable patients need large-bore drainage; populations differ.

Follow institutional policy; check population, stage and source.

Chinese prehospital 2026

WSES-AAST thoracic 2025

EAST hemothorax 2021

EAST 2011: hemothorax output and physiology

Abdomen: consider occult bleeding

Tiered recall; resident key-step simulation requires supervision and local policy.

SBP below 90 with shock signs, or pressure requiring ongoing fluids/blood/vasopressors, indicates instability. Positive FAST with no response goes directly to surgery/damage-control hemorrhage control; responders may have monitored contrast CT.

Interpret BE sign with lactate and trend; do not use the WSES printed BE greater than -5 as a stand-alone trigger or interchange BD with negative BE.

WSES I: stable AAST I-II; II: stable AAST III; III: stable AAST IV-V; IV: unstable at any anatomic grade.

Follow institutional policy; check population, stage and source.

NICE NG39

WSES liver2020

WSES spleen2017

Polytrauma: global priorities

Tiered recall; resident key-step simulation requires supervision and local policy.

Synthetic EFAST addition: absent left pleural sliding, right sliding present, no clear pericardial fluid. With reduced left sounds and BP78/48, trained teams decompress/drain and reassess without CT delay.

Arrival SI126/86 about 1.47, ABC at least 2: activate assessment for the institutional massive-transfusion pathway while controlling the source.

Major bleeding Fib at most 1.5 g/L prompts replacement assessment; European iCa 1.1–1.3 mmol/L, Chinese at least 1.00. Given Fib 1.7/iCa 1.05 prompt review, not false claims that every replacement threshold is crossed.

Follow institutional policy; check population, stage and source.

Chinese shock2023

European bleeding2023

WSES-AAST thoracic2025

Abdominal case: debrief trends

Tiered recall; resident key-step simulation requires supervision and local policy.

Original SBP 67 with hypoxemia warrants escalation before 58.

Relative bradycardia prompts beta-blocker/anticoagulant history but does not negate shock. Original FAST, age, Hb, lactate, BE and GCS components remain unknown.

Conditional exercise: unstable positive FAST with no response→damage-control laparotomy; suspected pelvis→binder/packing pathway. Prioritize blood and check TXA timing; do not describe proposed care as performed.

Follow institutional policy; check population, stage and source.

NICE NG39

European bleeding 2023

WSES pelvic 2017

Shock reassessment: improvement?

Tiered recall; resident key-step simulation requires supervision and local policy.

Original FAST records negative abdomen/pleura, not a negative pericardium. Add subxiphoid view, pump function and right-heart assessment early in persistent shock, not at round8. Hb and contrast-CT status are unconfirmed.

For suspected hemorrhage prioritize blood, limit crystalloid; SBP 80–90 is a reference before control without severe TBI. Do not rewrite original pressurized fluid as confirmed transfusion.

Anaphylaxis with circulatory/respiratory compromise: adult adrenaline 0.5 mg IM, repeat after five minutes if needed per local pathway. AMPLE A asks allergies; improvement after steroids neither proves causality nor substitutes first-line adrenaline.

Follow institutional policy; check population, stage and source.

Chinese shock 2023

European bleeding 2023

RCUK special-circumstances resuscitation (2025)

Spine/hip: neurovascular recheck

Tiered recall; resident key-step simulation requires supervision and local policy.

Bilateral arm burning pain/weakness with relative leg sparing raises central-cord concern. Complete ASIA/ISNCSCI motor/sensory/sacral assessment, not symptom-only diagnosis. Ejection/paresthesia are high risk: SMR and CT, then MRI for cord abnormalities.

Reduce urgently; six hours is a research comparison reference, not permission to wait. Document sciatic/peroneal function and perfusion before/after; post-reduction CT assesses fracture/fragments/congruence, followed by AVN surveillance.

Sedation needs dedicated monitoring, waveform CO₂, resuscitation/airway rescue and maintained SMR with anesthesia/orthopedic roles. ACEP2026 recommends correcting volume depletion first where feasible.

Follow institutional policy; check population, stage and source.

NICE NG41

NICE NG37

Hip reduction timing2017

ACEP sedation2026

Orthopedics: systemic then local

Tiered recall; resident key-step simulation requires supervision and local policy.

Early IV antibiotics, ideally within one hour. Chinese 2019 Gustilo–II first-generation cephalosporin(cefazolin), III adds aminoglycoside, fecal/anaerobic contamination adds penicillin/metronidazole; allergy/renal function/local resistance guide alternatives.

High risk: hourly exam, pain/passive stretch/analgesic dose. Symptoms: release circumferential layers to skin, heart-level limb, reassess within 30 minutes and consult orthopedics immediately.

Absent pulse/ongoing bleeding/expanding hematoma are hard signs; CRT/Doppler alone cannot exclude injury. Immediate orthopedic/vascular/plastic coordination, temporary shunt when needed.

Follow institutional policy; check population, stage and source.

Chinese open fracture2019

BOAST open fracture2017

NICE NG37

BOAST compartment2025

BOAST arterial2026

Spine: protection and serial neurology

Tiered recall; resident key-step simulation requires supervision and local policy.

Active MAP augmentation lower limit 75–80/upper 90–95 mmHg for 3–7 days, weak recommendation/very-low evidence. Do not lower every spontaneous pressure above 95; distinguish severe-TBI targets.

When feasible decompress within 24 hours; combine neurologic findings, CT-then-MRI, complete ASIA/sacral assessment.

AANS/CNS 2013 discourages routine MPSS; AO 2017 weakly offers adult 24-hour infusion starting within eight hours as an option, not after eight or 48-hour infusion. Specialists/local policy weigh benefit/infection risk.

Follow institutional policy; check population, stage and source.

AO/Praxis SCI 2024

AO SCI steroid 2017

NICE NG41

Upper limb: pre/post comparison

Tiered recall; resident key-step simulation requires supervision and local policy.

Supracondylar fracture/elbow dislocation: document radial pulse, digital perfusion and median (including AIN), radial and ulnar motor/sensory findings before and after reduction (BOAST).

Humeral shaft fracture: record wrist/finger extension and dorsal first-web sensation before/after reduction. Escalate new radial deficits despite satisfactory alignment (BOAST neurovascular principles).

Forearm risk: worsening pain, passive-stretch pain or sensory change requires reassessment; release constriction, keep at heart level and obtain urgent orthopedic review (BOAST compartment guidance).

Use upper-limb BBI/API rather than an ankle index; below 0.9 or asymmetric pulses warrants CTA/vascular review if stable. Hard signs or ischemia require immediate care without waiting for indices/imaging (WTA/BOAST).

Follow institutional policy; check population, stage and source.

BOAST: pediatric supracondylar humerus

BOAST arterial2026

BOAST compartment2025

WTA: extremity vascular API/BBI

Lower limb: local and systemic risk

Tiered recall; resident key-step simulation requires supervision and local policy.

Knee dislocation, including spontaneously reduced injury: assess vessels/peroneal nerve and ABI before/after reduction. Below 0.9 or asymmetric pulses requires CTA/vascular review. Serial examinations remain necessary at ≥ 0.9 (BASK).

Traction splints suit selected isolated femoral shaft injuries; avoid traction with pelvic or ipsilateral knee/lower-leg/ankle injury. Use alternative stabilization and verify device rules (prehospital guidance).

Tibial fractures carry compartment risk: serial pain/stretch, sensory/motor and analgesic-dose assessment. Release constriction and obtain urgent orthopedic review when suspected; pulses do not exclude it (BOAST).

Older hip-fracture patients need a geriatric co-care pathway: NICE surgery on admission day/next day; the Chinese 48-hour goal requires necessary optimization. Nerve blocks do not replace early surgery (NICE/Chinese implementation evidence).

Follow institutional policy; check population, stage and source.

BASK: multiligament knee injury/dislocation

EAST 2012: penetrating lower-limb arterial trauma

BOAST arterial2026

Chinese prehospital2026

BOAST compartment2025

NICE CG124

Chinese hip48 h official implementation

Medical education and supervised training.

Bvm: skill pocket

Supervised trainer practice; real procedures follow authorization and skill sources.

Assess breathing/protection/SMR, suction blood/secretions, choose appropriate oral/nasal adjunct without contraindications.

Two-person two-hand seal/jaw support; assistant bags, checking chest rise and leak.

If oxygen/chest rise fails check seal, obstruction, position and chest causes; persistent failure escalates airway with SpO₂/EtCO₂/perfusion review.

OSCE 0 omitted/unsafe, 1 prompted, 2 independent; total 10, critical failure overrides.

Follow institutional policy; check population, stage and source.

BTS emergency oxygen guideline (2017)

RCUK special-circumstances resuscitation (2025)

NICE NG41

AHA adult BLS2025

Intubation: skill pocket

Supervised trainer practice; real procedures follow authorization and skill sources.

DAS adult video laryngoscopy first; use trauma-specific SMR/MILS, suction, B/C/D backup plans and assigned roles.

JTS severe-hemorrhage anesthesia references reduced/titrated ketamine about 1 mg/kg IV, propofol 0.5–1 mg/kg IV with hypotension risk, not default doses for everyone; local anesthesia assessment.

Confirm with sustained waveform CO₂, secure and check depth/bilateral lungs/SpO₂/pressure; reconfirm after movement, enter DAS rescue on failure.

OSCE 0 omitted/unsafe, 1 prompted, 2 independent; total 10, critical failure overrides.

Follow institutional policy; check population, stage and source.

DAS intubation 2025

JTS trauma anesthesia 2021/2023

NICE NG41

Cricothyrotomy: skill pocket

Supervised trainer practice; real procedures follow authorization and skill sources.

DAS adult #10 scalpel, bougie, 6.0 mm cuffed tube, full paralysis/suction. Maximal extension belongs to its adult difficult-airway context; suspected trauma spine injury requires oxygen-rescue/SMR judgment, not routine forced extension.

DAS 2015 palpable membrane: transverse stab through skin/membrane; turn the perpendicular blade 90° caudally, insert bougie and guide a 6.0 mm cuffed tube.

DAS 2015 impalpable membrane: midline 8–10 cm caudal-to-cephalad incision, finger dissection/identification, then the same steps. DAS 2025 updates to a uniform vertical approach up to 8 cm; choose the training version explicitly.

Confirm sustained waveform CO₂ and secure; OSCE 0/1/2, total 10, critical failure overrides.

Follow institutional policy; check population, stage and source.

DAS 2015: palpable/impalpable membrane pathways

DAS intubation 2025

NICE NG41

Needle Decompression: skill pocket

Supervised trainer practice; real procedures follow authorization and skill sources.

Adult fourth/fifth interspace just anterior to midaxillary; alternate second midclavicular, not medial to nipple; child second midclavicular.

Adult TCCC 14G/10G, about 8 cm(3.25 inches) catheter reference; local anatomy/device selection, perpendicular over superior border of the lower rib.

Persistent failure or skilled hospital setting: open/finger thoracostomy then drain; TCCC post-second-attempt field care differs from the hospital pathway.

OSCE 0 omitted/unsafe, 1 prompted, 2 independent; total 10, critical failure overrides.

Follow institutional policy; check population, stage and source.

TCCC 2024

Chinese prehospital 2026

NICE NG39

WSES-AAST thoracic 2025

Tube Thoracostomy: skill pocket

Supervised trainer practice; real procedures follow authorization and skill sources.

Fourth–sixth interspace anterior-to-midaxillary safe triangle, confirm patient anatomy/imaging; trained blunt dissection/finger confirmation, no blind trocar.

Pneumothorax 8.5–24 Fr; stable hemothorax EAST conditional 14 Fr pigtail, larger/unstable WSES 28–40 Fr (no added benefit above 32).

Immediate chest-tube output >1500 mL, >200 mL/h for 2–4 h (this site uses WSES 3 h for teaching), or persistent hemodynamic instability: immediate thoracic surgical evaluation/operation; do not delay for the time threshold.

OSCE 0 omitted/unsafe, 1 prompted, 2 independent; total 10, critical failure overrides.

Follow institutional policy; check population, stage and source.

WSES-AAST thoracic 2025

EAST hemothorax 2021

NICE NG39

EAST 2011: hemothorax output and physiology

Efast: skill pocket

Supervised trainer practice; real procedures follow authorization and skill sources.

Bilateral pleura: sliding/lung point/fluid; negative/absent sliding have alternatives, not a single-image diagnosis.

Report windows/quality/findings/missing views/time.

Repeat matched to physiology; monitored stable responders get contrast CT, suspected tension is treated without completing ultrasound first.

OSCE 0 omitted/unsafe, 1 prompted, 2 independent; total 10, critical failure overrides.

Follow institutional policy; check population, stage and source.

NICE NG39

RCH: major pediatric trauma primary survey

WSES pelvic 2017

Tourniquet: skill pocket

Supervised trainer practice; real procedures follow authorization and skill sources.

Visible wound: TCCC 5–7 cm proximal, off a joint; Chinese reference at least 10 cm per selected system. If unseen, high-and-tight; tighten/add a second alongside/proximal if ineffective.

Confirm both bleeding cessation and absent distal pulse, with pulse not applicable to amputation; pulse alone is insufficient.

Aim for conversion within two hours only without shock, with close monitoring, and not amputation; after six hours do not remove without monitoring/labs. Trained team conversion only.

OSCE 0 omitted/unsafe, 1 prompted, 2 independent; total 10, critical failure overrides.

Follow institutional policy; check population, stage and source.

TCCC 2024

Chinese prehospital 2026

Chinese shock 2023

Pelvic Binder: skill pocket

Supervised trainer practice; real procedures follow authorization and skill sources.

Center at greater trochanters/symphysis, not iliac crest/waist; check clothing/skin.

Knees together/internal rotation when associated injuries allow; gentle observation, no repeated springing.

Persistent instability→AE/PPP/stabilization; plan removal/replacement, NICE within 24 hours with surgical plan for instability.

OSCE 0 omitted/unsafe, 1 prompted, 2 independent; total 10, critical failure overrides.

Follow institutional policy; check population, stage and source.

WSES pelvic 2017

NICE NG37

Chinese shock2023

Splinting: skill pocket

Supervised trainer practice; real procedures follow authorization and skill sources.

Open fracture: early IV antibiotics within one hour, saline-moistened/occlusive dressing, authorized photo, no ED irrigation/probing; local tetanus policy.

Femoral-shaft traction depends on device/pattern; avoid with pelvis or ipsilateral knee/lower-leg/ankle injury, use other immobilization.

Suspected compartment syndrome: release circumferential dressings/splint to skin, limb at heart level, immediate orthopedics; a pulse does not exclude it.

OSCE 0 omitted/unsafe, 1 prompted, 2 independent; total 10, critical failure overrides.

Follow institutional policy; check population, stage and source.

NICE NG37

NICE NG41

Hypothermia and damage control

Adult major traumatic bleeding; use a core-temperature method

Core below 35 C; rewarm toward 36–37 C.

Remove wet clothing, insulate and warm patient/infusions/blood; 37 C laboratory testing may understate hypothermic coagulopathy.

T at most 35 C with pH at most 7.2, coagulopathy, ongoing bleeding and lengthy-reconstruction risk: consider staged damage-control surgery.

Follow institutional policy; check population, stage and source.

Chinese R12/R29; one temperature does not decide surgery alone

Chinese shock 2023

European bleeding 2023

Pediatric burn fluids

Children; maintenance 70–100 mL/kg, under two years 100–150 mL/kg

First 24 hours: $2 \text{ mL} \times \text{kg} \times \% \text{TBSA (partial/full thickness)} + \text{maintenance}$.

Crystalloid:colloid 1–3:1; half in first eight hours from injury, remainder in the next two eight-hour periods; urine about 1 mL/(kg·h).

Over 5% may cause shock; head/face/neck injury raises airway concern; adjust to previous fluids, circulation and glucose.

Follow institutional burn-service policy; check population, stage and source.

Do not use adult 2000 mL maintenance; use actual weight and percentage-number area

NHC burns 2025