

Step 3 CCS mnemonic database

44 mnemonics | 10 categories | Updated 2026-10-13

A study reference for recall, appropriate orders and reassessment. Read every accuracy note: these are memory aids, not complete clinical protocols.

Useful reminder. A helpful cue for the right patient; not a complete protocol.

Needs modification. Requires additions, qualifications or patient-specific changes.

Historical mnemonic. Recognize the classic list; do not use it as a current order set.

Clinical risk score. Calculate correctly and combine with clinical judgment.

The CSV, searchable page and printable reference contain the same full database. Search at ccsorbit.com/tools/ccs-mnemonic-database/

Any case

Stabilization, sequencing and reassessment prompts. Match each action to the presentation.

IOM + 1 [Useful reminder](#)

IV access, Oxygen when indicated, Monitor as needed, plus the one time-critical treatment

Accuracy note. Use this as a stabilization prompt for an acutely ill patient, not a mandatory set for every office visit. Match access and monitoring to the illness. Oxygen needs an indication, such as hypoxemia or a condition-specific reason. The +1 is the time-critical treatment: IM epinephrine for anaphylaxis, IV calcium for hyperkalemia with ECG changes, or immediate decompression for tension pneumothorax.

Credit: CCS Orbit

Save, then scan [Useful reminder](#)

Address immediate threats before transferring an unstable patient for imaging

Accuracy note. Treat immediately reversible threats before transferring an unstable patient for imaging. Examples include decompression for tension pneumothorax and seizure treatment in status epilepticus. Bedside imaging can support resuscitation; diagnostic urgency and safe transport depend on the presentation.

Credit: CCS Orbit

OAR [Useful reminder](#)

Order, Advance the clock, Reassess

Accuracy note. Order the indicated intervention, deliberately advance to an appropriate reassessment point, then check the response. Official CCS also advances simulated time automatically for history and physical examination actions. A large clock jump can delay recognition of deterioration; use short reassessment intervals in unstable cases.

Credit: CCS Orbit

ABCDE [Useful reminder](#)

Airway, Breathing, Circulation, Disability, Exposure

Accuracy note. A structured assessment of an acutely ill patient. Assess and address threats as you go rather than waiting to finish all five steps. Disability includes checking glucose when altered mental status is present. Oxygen, monitoring and exposure should match the clinical need.

Opening orders

Memory aids for selecting opening orders. A long checklist is not a reason to order every item.

VOMICAA [Needs modification](#)

Vitals, Oxygen/oximetry, Morphine/metoclopramide/magnesium, IV fluids, Cardiac monitoring, Accu-check glucose, Acetaminophen/aspirin (plus ABG)

Accuracy note. A memory checklist, not a default order set. Choose monitoring, IV access, oxygen, analgesia and antipyretics for the presentation. Antibiotics need a suspected infection and an appropriate regimen; aspirin needs an indication and a contraindication check.

CUBE T3 [Historical mnemonic](#)

CBC/CMP/CXR, Urinalysis, Beta-hCG, ECG, Troponin, TSH, Toxicology

Accuracy note. Historical broad testing bundle. ECG, chest imaging, urine studies, pregnancy testing and other tests each need a reason. A urine toxicology screen does not reliably exclude poisoning. TSH and troponin are not routine orders for every patient.

CUBE STEP [Historical mnemonic](#)

Chest X-ray/Cardiac monitor, Urinalysis/Urine tox, Beta-hCG, ECG, Saline, TSH, ESR and CRP, PT/PTT

Accuracy note. Historical broad testing bundle, not a required opening panel. Saline needs a fluid indication. TSH, ESR, CRP and coagulation studies should answer a clinical question. Select pregnancy testing, imaging and urine tests according to the presentation.

COUTS [Needs modification](#)

Cultures (blood, urine, sputum, wound, Gram stain), Oximetry, Urinalysis, Tylenol, Saline

Accuracy note. Use fever to guide a focused source evaluation rather than ordering every culture. If sepsis is suspected, promptly assess perfusion and lactate and start appropriate antibiotics; obtain relevant cultures first when this will not meaningfully delay treatment. Fluids are for a resuscitation or hydration need, not fever alone.

BLAST [Useful reminder](#)

Blood cultures, Lactate, Antibiotics (broad-spectrum IV), Saline (crystalloid), Target MAP 65 or more

Accuracy note. A sepsis prompt, not a rigid drug sequence. The 2026 Surviving Sepsis Campaign suggests at least 30 mL/kg crystalloid in the first 3 hours for sepsis-induced hypoperfusion or septic shock, with individualization and frequent reassessment. Obtain cultures promptly, ideally before antibiotics without delaying urgent treatment. Norepinephrine is first-line; unstable shock may need fluids and vasopressors together. Reassess perfusion and elevated lactate.

Credit: CCS Orbit

TEAM CLANGs [Useful reminder](#)

TCA, Ethanol, Acetaminophen, Monitor (cardiac), CK, Lactate, ABG, Naloxone, Glucose

Accuracy note. Tailor testing to the exposure and toxidrome. Acetaminophen and salicylate levels are important in suspected or unclear overdose; for TCA toxicity, the ECG and QRS duration matter more than a drug level. Naloxone is for suspected opioid-related respiratory depression. Check glucose promptly and consider pregnancy testing and toxic-alcohol evaluation when relevant.

PUSH CALM V [Needs modification](#)

Phosphate, Ultrasound, Stool studies, HbA1c, CK, ANA and RF, Lactate/LDH/Lipid profile, Magnesium, Vitamin levels

Accuracy note. An additional-testing reminder, not a routine panel. ANA and RF are for a clinically suspected autoimmune or inflammatory condition, not nonspecific joint symptoms alone. Match CK, lactate, stool testing, imaging and vitamin measurements to the problem you are trying to answer.

COMBAT cancer [Needs modification](#)

Counsel diagnosis, Oncology/radiology consult, Marker (tumor marker), Biopsy, Arrange PET scan, Treatment preparation

Accuracy note. Counsel honestly about suspected versus confirmed disease and arrange the appropriate diagnostic pathway. Tissue diagnosis, tumor markers, specialist input and staging depend on the cancer and presentation. PET is not a universal first staging test, and a tumor marker generally cannot establish the diagnosis by itself.

Admission and surgery

Admission and procedural reminders that need patient-specific decisions.

AID LUV Tubes [Useful reminder](#)

Activity, IV fluids, Diet, LMWH (VTE prophylaxis), Urine output, Vitals, Tubes (NG, Foley)

Accuracy note. Adapt admission orders to the patient: activity, diet, fluid balance, monitoring and VTE prevention are not automatic prescriptions. Choose or adjust pharmacologic prophylaxis for renal function, bleeding risk and planned procedures; use mechanical prophylaxis when appropriate. NG tubes and urinary catheters need a specific indication.

ADC VAAN DIML [Historical mnemonic](#)

Admit, Diagnosis, Condition, Vitals, Activity, Allergies, Nursing, Diet, IV fluids, Medications, Labs

Accuracy note. A traditional ward-admission checklist. Official CCS admission is a location change; several headings are chart information rather than selectable orders. Add a VTE-risk assessment and only the indicated diet, activity, medication, monitoring and fluid orders.

TPN A CSF [Needs modification](#)

Type and screen, PT/PTT/INR, NPO, Antibiotic prophylaxis (cefazolin), Consent, Surgery name, Fluids

Accuracy note. A preoperative reminder, not a universal order set. Type and screen, coagulation tests, fluids and antibiotic choice depend on the procedure and risk. Give prophylactic antibiotics within the appropriate pre-incision window when indicated. TPN here is not total parenteral nutrition.

Closing the case

Finish disposition and timed follow-up while the case is active; choose prevention that is due.

CLOSER [Useful reminder](#)

Counsel, Location, Order monitoring, Screen and vaccinate, Exit plan (follow-up with a stated interval), Refer

Accuracy note. Use this BEFORE the case-end screen: official CCS no longer allows location changes, physical examinations, clock advancement or follow-up appointments after that screen appears. While the case is active, complete needed reassessment, disposition and timed follow-up. On the final screen, review and add or cancel indicated orders; do not order screening that is not due.

Credit: CCS Orbit

SVC [Useful reminder](#)

Screen, Vaccinate, Counsel

Accuracy note. A useful preventive-care reminder once the acute problem is addressed. Screen and vaccinate only when due for the patient's age, risk, prior results and vaccination history. Include appropriate counseling, return precautions and follow-up while those actions are available.

Credit: CCS Orbit

P-MIST [Needs modification](#)

Pneumococcal, Meningococcal, Influenza, Shingles (50+), Tdap/Td

Accuracy note. Incomplete vaccine checklist. Pneumococcal vaccination is routine from age 50 and earlier for selected risks, with product and interval based on prior doses. Meningococcal vaccination is risk-based for most adults. Also assess HPV, hepatitis B, COVID-19 and RSV eligibility; RSV is not an annual vaccine. Use the current adult schedule.

SHIP the vaccines To Me [Needs modification](#)

Shingles (50+), HPV (11 to 26), Influenza, Pneumococcal (65+ in the original), Tetanus (Tdap), Meningococcal

Accuracy note. The original age 65 pneumococcal cue is outdated: routine adult eligibility now starts at 50, with earlier risk-based indications. Recombinant zoster vaccine is two doses from 50, or from 19 with immunocompromise. HPV catch-up is through 26; selected adults 27-45 use shared decision-making. This list still omits other indicated vaccines.

PMC [Needs modification](#)

Pap, Mammogram, Colonoscopy

Accuracy note. A partial screening reminder, not three tests for every patient. For average-risk patients, USPSTF recommends biennial mammography at ages 40-74 and colorectal screening at 45-75; colonoscopy is one option. Cervical screening depends on age, prior results and test strategy. Consider lung, AAA and osteoporosis screening only when eligibility criteria are met.

Health Care Workers Should [Historical mnemonic](#)

HIV and Hepatitis panel, Chlamydia and gonorrhea NAAT, Wet mount, Syphilis (VDRL/RPR)

Accuracy note. Historical screening bundle with inappropriate blanket tests. Use the specific recommended HIV, hepatitis B or hepatitis C test rather than a generic hepatitis panel. Chlamydia/gonorrhea screening applies to sexually active women under 25 and older women with increased risk, with additional population-specific recommendations. Wet mount is an evaluation for symptoms, not routine screening; syphilis testing is risk- or pregnancy-based.

SASS [Useful reminder](#)

Smoking cessation, Alcohol, Safe sex, Seatbelt

Accuracy note. Choose relevant counseling rather than checking every box. Address tobacco use, unhealthy alcohol use, sexual health and safety based on the patient. Add diet, activity, medication adherence and return precautions when appropriate. Alcohol counseling should reduce risk, not encourage drinking.

CRIME [Useful reminder](#)

Consult, Reassurance, Instruct (smoking, sex, seatbelt, alcohol), Medication adherence and side effects, Exercise and diet

Accuracy note. A counseling and discharge reminder, not an automatic consultation bundle. Refer for a clinical reason and give reassurance supported by the findings. Include medication instructions, warning signs and an appropriate follow-up plan; arrange the appointment before the case-end screen if needed.

5 As [Useful reminder](#)

Ask, Advise, Assess readiness, Assist, Arrange follow-up

Accuracy note. A useful tobacco-treatment framework. Assist with a quit plan, behavioral support and suitable pharmacotherapy rather than counseling alone. Varenicline and combination nicotine replacement are effective options; selection depends on contraindications, pregnancy, preferences and prior response. Arrange follow-up while the CCS case is active.

Cardiology

Distinguish historical drug lists from current priorities and validated risk assessment.

MONA BASH [Historical mnemonic](#)

Morphine, Oxygen, Nitrates, Aspirin, Beta-blocker, ACE inhibitor, Statin, Heparin

Accuracy note. Historical treatment list, not an ACS sequence. Prioritize prompt ECG, aspirin when appropriate, and the reperfusion pathway. The 2025 US ACS guideline recommends oxygen for hypoxemia, not routinely when saturation is at least 90%. Morphine is not routine first-line treatment. Nitrates require a blood-pressure and contraindication check. Antithrombotics, P2Y12 selection, beta-blockers and other drugs depend on bleeding risk, stability and the planned strategy; the mnemonic misses reperfusion.

LMNOP [Historical mnemonic](#)

Lasix (furosemide), Morphine, Nitrates, Oxygen, Position upright

Accuracy note. Historical pulmonary–edema list. Routine morphine should not be carried forward. Treat congestion with appropriate diuresis; oxygen is for hypoxemia and noninvasive ventilation may be needed for respiratory distress. Nitrates require adequate blood pressure. Subsequent heart–failure treatment depends on ejection fraction, stability, renal function and other contraindications.

PIRATES [Useful reminder](#)

Pulmonary (PE, COPD), Ischemia, Rheumatic valve disease, Anemia or Atrial myxoma, Thyrotoxicosis, Elevated BP or Ethanol, Sepsis or Sleep apnea

Accuracy note. A differential reminder for new atrial fibrillation, not a reason to test for every listed cause. ECG, electrolytes, thyroid evaluation and echocardiography may be appropriate. Assess hemodynamic stability first, and consider hypertension, obesity and sleep apnea as well as acute triggers.

CHA2DS2–VASc [Clinical risk score](#)

CHF, Hypertension, Age 75+ (2 points), Diabetes, Stroke/TIA/embolism (2 points), Vascular disease, Age 65 to 74, Sex category (female)

Accuracy note. A stroke–risk score, not a treatment sequence. US guidance recommends anticoagulation at an estimated annual thromboembolic risk of at least 2%, roughly a score of 2 in men or 3 in women; intermediate risk may also justify treatment after discussion. Prefer a DOAC when eligible, except with a mechanical valve or moderate–to–severe mitral stenosis. Do not count both age categories. Assess bleeding risks and modifiable factors without using a bleeding score alone to deny treatment.

Endocrine

Potassium, glucose and treatment sequencing, with condition-specific safeguards.

K before I [Useful reminder](#)

Check potassium before starting insulin in DKA

Accuracy note. The 2024 hyperglycemic-crisis consensus uses potassium below 3.5 mmol/L as the threshold to replace potassium and delay insulin until potassium exceeds 3.5. Start appropriate fluid resuscitation and monitor electrolytes closely; isotonic saline or balanced crystalloid may be used, with adjustment for cardiac or renal impairment. Add dextrose when glucose falls below 250 mg/dL so insulin can continue until ketoacidosis resolves. Bicarbonate is not routine.

Credit: CCS Orbit

ABCs of diabetes [Needs modification](#)

A1c, Blood pressure, Cholesterol (plus stop Smoking)

Accuracy note. An incomplete follow-up framework. Add kidney assessment with UACR and eGFR, retinal assessment, foot/neuropathy evaluation and indicated vaccines. Timing depends on diabetes type and duration. ADA 2026 selects cardiorenal therapies by the specific ASCVD, heart-failure or CKD indication, not A1c alone; GLP-1 RAs and SGLT2 inhibitors are not interchangeable for every condition.

Rule of 15 [Useful reminder](#)

Give 15 g fast-acting carbohydrate, recheck in 15 minutes, repeat if glucose is still below 70 mg/dL

Accuracy note. For hypoglycemia in a patient who can swallow safely. Altered consciousness or unsafe swallowing requires IV dextrose, or glucagon when IV access is unavailable. Recheck glucose, provide longer-lasting carbohydrate when appropriate and assess the cause. Sulfonylurea-related or recurrent hypoglycemia can need prolonged monitoring and additional treatment.

4 Bs of thyroid storm [Useful reminder](#)

Block synthesis (PTU or methimazole), Block release (iodine), Block T4-to-T3 conversion (PTU, steroids, propranolol), Beta-block

Accuracy note. A multimodal treatment reminder, not four automatic drug orders. Give iodide at least an hour after a thionamide. Treat the precipitant, provide supportive care and consider glucocorticoids. Beta-blockade needs particular caution in decompensated heart failure, shock or low blood pressure; select and titrate treatment with specialist/critical-care input.

Credit: CCS Orbit (name only; the sequence is standard teaching)

Renal and electrolytes

Emergency stabilization, definitive treatment and careful electrolyte monitoring.

C BIG K Drop [Historical mnemonic](#)

Calcium gluconate, Bicarbonate, Insulin + Glucose, Kayexalate, Diuretics or Dialysis

Accuracy note. Historical list: do not wait for every step in this order. Urgently assess ECG and severity; calcium protects the myocardium when indicated, while insulin with glucose shifts potassium and requires glucose monitoring. Nebulized albuterol is an adjunct. Bicarbonate is not routine. Oral binders, particularly slow-onset patiomer, do not replace emergency stabilization; consider definitive removal and dialysis when indicated.

AEIOU [Useful reminder](#)

Acidosis, Electrolytes (hyperkalemia), Intoxication, Overload, Uremia

Accuracy note. A prompt for urgent renal-replacement assessment. Refractory acidosis, hyperkalemia or fluid overload can be indications, but dangerous dialyzable poisoning and uremic complications do not all require a failed trial of medical treatment first. Lithium, methanol, ethylene glycol and salicylates have toxin-specific criteria. A BUN value alone does not establish symptomatic uremia.

GOLDMARK [Useful reminder](#)

Glycols, Oxoproline, L-lactate, D-lactate, Methanol, Aspirin, Renal failure, Ketoacidosis

Accuracy note. A differential for anion-gap metabolic acidosis, not a mandatory test panel. Consider lactate, ketoacidosis, renal failure and clinically plausible toxic exposures first. Oxoproline and D-lactate are context-dependent causes. Use the history, acid-base findings and appropriate toxin-specific testing to narrow the list.

Low to high, your pons will die [Needs modification](#)

Correcting hyponatremia too fast causes osmotic demyelination; correcting hypernatremia too fast (high to low, your brain will blow) causes cerebral edema

Accuracy note. A safety reminder, not a complete sodium protocol. Set correction targets according to chronicity, symptoms and risk. In high-risk chronic hyponatremia, avoid a rise above 8 mmol/L in 24 hours and monitor closely for overcorrection. Severe symptoms can still need carefully monitored hypertonic saline. Hypernatremia correction also requires an individualized plan; evidence and risks differ by age and acute versus chronic onset.

GI, lung and infection

Cause and severity frameworks to support targeted evaluation and safe disposition.

5 Ws of post-op fever [Historical mnemonic](#)

Wind (day 1 to 2: atelectasis, pneumonia), Water (day 3 to 5: UTI), Wound (day 5 to 7: infection), Walking (day 5 on: DVT/PE), Wonder drugs (any time: drug fever, transfusion)

Accuracy note. A historical differential, not a dependable day-by-day diagnosis. Atelectasis should not be assumed to explain postoperative fever. Early fever can reflect inflammation, but infection and other serious causes depend on symptoms, severity and context. Assess wounds, lines, lungs, urinary symptoms, medication/transfusion exposure and thromboembolic risk rather than ordering every test.

I GET SMASHED [Useful reminder](#)

Idiopathic, Gallstones, Ethanol, Trauma, Steroids, Mumps and other viruses, Autoimmune, Scorpion sting, Hypercalcemia or Hypertriglyceridemia, ERCP, Drugs

Accuracy note. A cause list with several rare or uncertain associations. Assess common causes such as gallstones and alcohol first, and use liver tests, ultrasound, triglycerides and calcium when relevant. Marked hypertriglyceridemia needs clinical context. Fluids should be moderate and goal-directed with frequent reassessment, especially with cardiac or renal disease; aggressive routine resuscitation can cause overload.

CURB-65 [Clinical risk score](#)

Confusion, Urea above 7 mmol/L (BUN above 19 mg/dL), Respiratory rate 30 or more, BP below 90 systolic or 60 or less diastolic, age 65 or more

Accuracy note. A pneumonia severity score, not an automatic disposition rule. Count each criterion once. ATS/IDSA prefers PSI plus clinical judgment for the hospitalization decision; use severe-CAP criteria, oxygenation and organ-support needs for ICU assessment. Low scores do not override hypoxemia, instability, major comorbidity or inability to manage safely at home.

Neurology

Prompt assessment of glucose, immediate threats and presentation-specific investigations.

AEIOU TIPS [Useful reminder](#)

Alcohol, Epilepsy/Electrolytes/Encephalopathy, Insulin (hypo- or hyperglycemia), Opiates/Overdose, Uremia, Trauma/Temperature, Infection, Poisoning/Psychiatric, Stroke/Shock

Accuracy note. A broad altered-mental-status differential. Assess airway, breathing, circulation and bedside glucose promptly, then select testing for the presentation. Give thiamine when alcohol use or malnutrition is suspected, but do not delay treatment of hypoglycemia while waiting for it.

SNOOP [Useful reminder](#)

Systemic symptoms, Neurological signs, Onset sudden (thunderclap), Older age (over 50), Pattern change/Positional/Papilledema

Accuracy note. Red flags prompt focused assessment and an appropriate investigation; they do not all mandate the same imaging test. For selected patients with a normal neurologic examination, an adequate noncontrast head CT within 6 hours can exclude SAH under ACEP guidance. Later presentation or residual concern after negative CT may require LP or CTA. Evaluate other causes according to the full presentation.

Hematology and obstetrics

Risk assessment and time-critical treatment; several actions must happen in parallel.

4Ts (HIT) [Clinical risk score](#)

Thrombocytopenia, Timing of platelet fall, Thrombosis or other sequelae, oTher causes of thrombocytopenia

Accuracy note. A pretest probability score. Low probability generally means no HIT testing or empiric HIT treatment unless the score is uncertain. For intermediate/high probability, stop heparin and assess a non-heparin anticoagulant and testing pathway, accounting for bleeding risk and other anticoagulation indications. Avoid routine platelet transfusion, but bleeding can justify it. Delay warfarin until platelet recovery.

HELLP [Useful reminder](#)

Hemolysis, Elevated Liver enzymes, Low Platelets

Accuracy note. A serious obstetric emergency that can occur without marked hypertension. Obtain urgent obstetric assessment, stabilize the patient, address severe hypertension and use magnesium when indicated. Delivery timing depends on maternal and fetal status. Antenatal corticosteroids may be appropriate when preterm, but medically indicated delivery must not be delayed to complete them.

4 Ts of postpartum hemorrhage [Useful reminder](#)

Tone, Trauma, Tissue, Thrombin

Accuracy note. A cause framework; assess and treat in parallel rather than waiting to complete the list. The early hemorrhage response includes uterine massage, an appropriate uterotonic, tranexamic acid, fluids, examination for the cause and escalation. Give TXA as soon as possible within 3 hours of birth when indicated. Trauma, retained tissue and coagulopathy require cause-specific management.