ACE Inhibitors

SPS Monitoring Guidance (Apr 2025) | NICE NG106 / NG136 | BNF | Think Kidneys

⚠ MONITORING: Check Before and After Starting

- ☐ Baseline: eGFR or creatinine, potassium, sodium, and blood pressure before starting. Do not normally initiate if potassium is above 5.0 mmol/L.
- ☐ Heart failure: recheck within 1-2 weeks (5-7 days if risk factors), then monthly for 3 months, then every 6 months. Repeat at any time the patient is acutely unwell.
- ☐ Hypertension / post-MI: recheck within 1-2 weeks (7 days if risk factors), then annually.

SICK DAY RULES: Withhold During Acute Illness

- ☐ During any illness causing dehydration (vomiting, diarrhoea, fever, or poor fluid intake): withhold the ACE inhibitor to reduce the risk of acute kidney injury.
- ☐ Restart when eating and drinking normally for 24-48 hours.
- ☐ Ensure every patient has been given sick day rules advice. Supply a sick day rules card at first dispense if available locally.
- ☐ Patients on multiple sick day rule medicines (SADMAN) are at particularly high risk of acute kidney injury during illness.

Key Drug Interactions

Medicine	Risk	Action
NSAIDs (ibuprofen, naproxen)	Reduced efficacy; worsened renal function; hyperkalaemia	Advise against OTC NSAIDs; avoid unless clinically essential
Potassium-sparing diuretics / spironolactone	Hyperkalaemia (particularly with spironolactone)	Monitor potassium closely; combination requires careful monitoring
Lithium	ACE inhibitors reduce lithium excretion, raising levels	Confirm lithium monitoring arrangements if ACE inhibitor started, stopped, or dose changed
ACE inhibitor + ARB combination	Increased AKI and hyperkalaemia risk	Dual RAAS blockade is generally not recommended; confirm prescriber intent if both are prescribed

⚠ REPEAT DISPENSE CHECKS

- ☐ Ask: "Have you noticed a new dry cough since starting this medicine?" ACE inhibitor cough affects 5-20% of patients. Refer to prescriber; a switch to an ARB usually resolves it.
- ☐ Ask: "Have you had any vomiting, diarrhoea, or illness recently?" Confirm sick day rules understanding if relevant.
- ☐ Check for newly prescribed NSAIDs, potassium supplements, or potassium-sparing diuretics.

RED FLAGS: Act Immediately

- ☐ Swelling of face, lips, tongue, or throat (angioedema): stop ACE inhibitor immediately and call 999. Do not restart any ACE inhibitor. Alternative treatment should be decided by the prescriber or specialist.
- ☐ Creatinine rise above 30% or eGFR fall above 25% after starting: contact prescriber. May indicate renal artery stenosis.
- ☐ Abnormal potassium results reported to the patient or urgent surgery contact: ensure same-day urgent medical review.
- ☐ Severe first-dose hypotension (dizziness, collapse): withhold ACE inhibitor and contact prescriber urgently.
- ☐ Pregnancy confirmed: ACE inhibitors should be avoided in pregnancy. Stop immediately and refer urgently.

Key reminders: First dose hypotension risk: advise patients to take the first dose at bedtime and rise slowly. Cough is common; many patients stop treatment without mentioning the cough. Angioedema can occur years after starting treatment, not just at initiation.

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