

Guiding Principles: Edema is common in patients with ESKD. Edema in tissues can impact circulation, mobility, quality of life and wound healing. **Pulmonary edema** occurs when a patient is intravascularly volume overloaded; this can exacerbate the patient's sensation of shortness of breath. **Note that interventional guidelines do not replace individualized care and clinical expertise.**

► **Step 1: One of most common causes of edema in kidney failure is volume overload. However, rule-out possible contributing factors to edema, and address as appropriate:**

- Peripheral arterial insufficiency
- Heart failure
- Liver failure
- Severe skin conditions
- Thrombosis
- Lack of exercise
- Previous injury or surgical intervention
- Lymphedema
- Hypoalbumenia
- Malnutrition
- Medication (e.g. amlodipine (Norvasc), sodium bicarbonate, sodium polystyrene (Kayexalate))

► **Step 2: Consider non-pharmacological management:**

- Encourage patients to elevate their edematous extremities above their heart whenever seated.
- Consider compression therapy (e.g. wraps and pressure gradient stockings).
- Encourage movement, as appropriate, to recirculate fluid.
- Consider dietary salt restrictions (if volume overloaded) ([See: Sodium/Fluid Statement](#))
- Consider fluid restrictions (if volume overloaded).
- Consider regular weight and blood pressure measurements to help regulate volume.
- Consider a referral to physiotherapy and/or occupational therapy for support with edema management.
- [See: Swelling Patient Handout](#)

► **Step 3: Consider pharmacological management:**

- **Start or increase** dose of furosemide (Lasix) (loop diuretic).
 - Furosemide (Lasix) 20mg PO BID, up to 120mg PO BID for 2-5 days and re-evaluate.
- If the patient is experiencing pulmonary edema, ([See: Breathlessness Guideline](#))
- ([See: End of Life Breathlessness Algorithm](#))

Conservative Kidney Management Acronym Legend

Acronym:	Intended Meaning:
ATC	Around the Clock
BID	Twice Daily
CKD	Chronic Kidney Disease
CKM	Conservative Kidney Management
COPD	Chronic Obstructive Pulmonary Disease
CO ₂	Carbon Dioxide
EOL	End of Life
ESA	Erythropoietin Stimulating Agent
ESKD	End Stage Kidney Disease
GFR	Glomerular Filtration Rate
GI	Gastrointestinal
g/L	Grams per litre
HgB	Hemoglobin
IN	Intranasal
IU	International Units
IV	Intravenous
kg	Kilogram
mcg	Microgram
mg	Milligram
mL	Millilitre

Acronym:	Intended Meaning:
mmol/L	Millimole per Litre
OTC	Over the Counter
PO	By Mouth
PRN	As Needed
NSAID	Non-steroidal Anti-inflammatory Drugs
q(1-8)d	Every (Time Eg, 2) Days
q(1-8)h	Every (Time Eg, 4) Hours
q(1-8)weeks	Every (Time Eg. 2) Weeks
QHS	At Bedtime
RLS	Restless Leg Syndrome
SC	Subcutaneous
SL	Sublingual
SNRI	Serotonin and Norepinephrine Reuptake Inhibitors
SSRI	Selective Serotonin Reuptake Inhibitors
TCA	Tricyclic Antidepressant
TID	Three Times a Day
>	Greater Than
≥	Greater Than or Equal To
<	Less Than
≤	Less Than or Equal To