Harnessing Every Contact Counts in Cardiorenal Metabolic (CRM) Disease Prevention & Management

The Nurse’s Pivotal Role in Primary Care

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Introduction:

Cardiovascular disease (CVD), Metabolic conditions e.g. diabetes, and Chronic Kidney disease (CKD)—are interconnected and often coexist.

Nurses are at the frontline of care and are key to identifying, preventing, and managing these conditions.

‘Every Contact Counts’ means using routine interactions to drive meaningful, proactive care.

Understanding Cardiorenal Metabolic (CRM) Disease: The Interconnected System

- **CRM Disease:**
  - **C**ardiovascular (Heart) **R**enal (Kidney) - **M**etabolic (Body's Energy/Sugar/Fat/BP)
  - A systemic disorder where these systems **interact multidirectionally**, amplifying each other's effects.
  - **More than the sum of its parts:** Problems *amplify* each other.

Cardiovascular, Renal and metabolic (CRM) conditions are interrelated, significantly contributing to morbidity, mortality and healthcare burden

Examples of CRM Conditions:

Cardiovascular Conditions (Heart/blood vessels)**:**

- High Blood Pressure (Hypertension)-
- Heart Failure
- Coronary Artery Disease (leading to Heart Attack)
- Stroke
- Peripheral Artery Disease

Renal Conditions:

- Chronic Kidney Disease (CKD)
- Albuminuria (protein in urine – early sign of kidney damage)

Metabolic Conditions:

- Type 2 Diabetes (T2D)
- Overweight & Obesity
- High Cholesterol and triglyceride - *High Cholesterol is a Direct Driver of CVD*
- Metabolic Syndrome (a cluster of risks)- *Hypertension is one of the key diagnostic criteria for Metabolic Syndrome*

The Vicious Cycle: Heart ↔ Kidneys & Metabolic Drivers

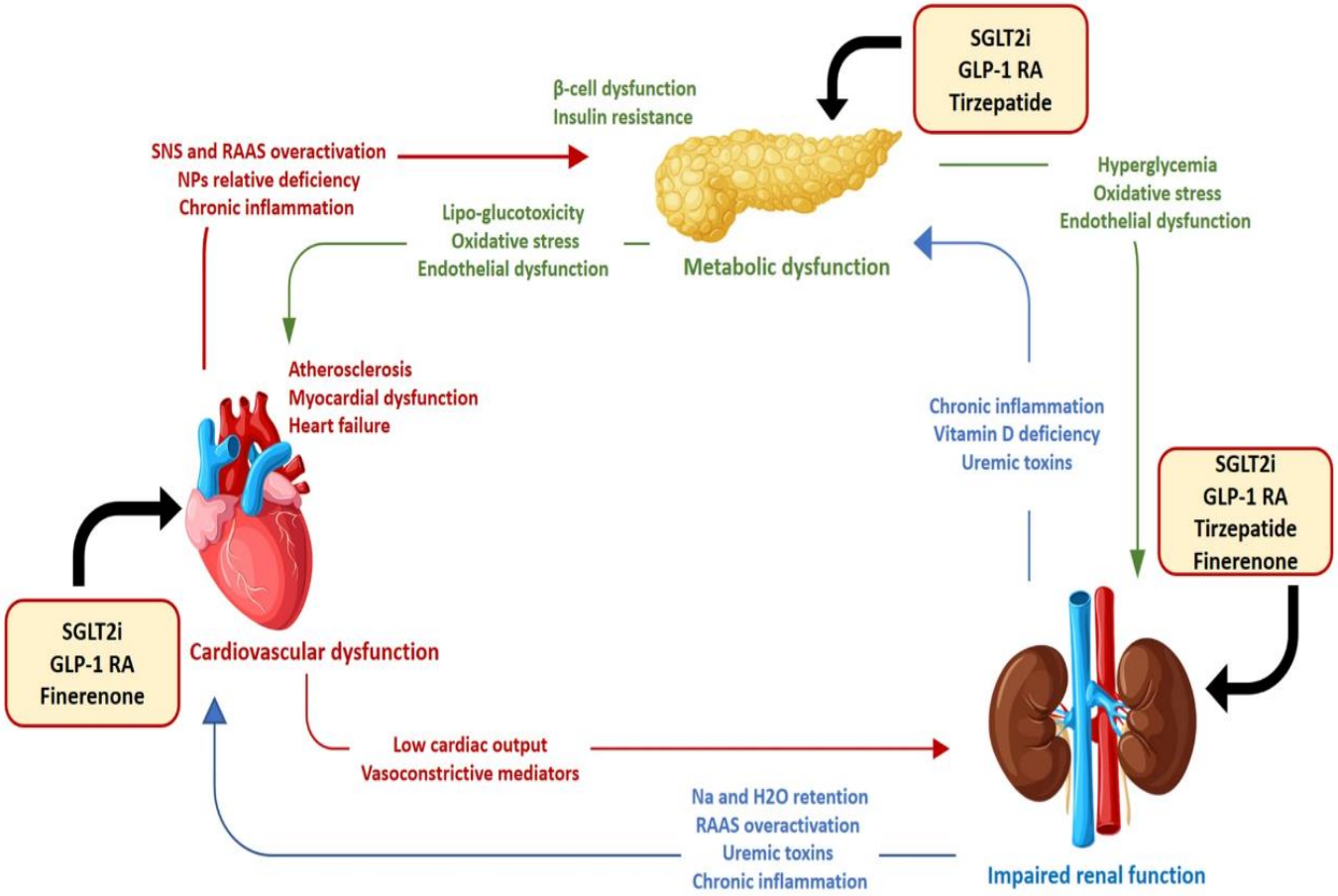
CKD increases CV risk 2–3×, independent of traditional risk factors (NICE NG203, 2021).

Stage 2 CKD doubles the risk of heart failure.

- CVD (e.g HF) worsen renal perfusion, accelerating CKD.

- Metabolic conditions (diabetes, hypertension, obesity, dyslipidemia) drive systemic inflammation, oxidative stress, and endothelial dysfunction—linking heart and kidney damage.

From: The cardio-renal-metabolic connection: a review of the evidence



Cardio-metabolic-renal interconnections and therapeutic options. SNS, sympathetic nervous system; RAAS, renin–angiotensin–aldosterone system; NPs, natriuretic peptides; SGLT2i: sodium-glucose cotransporter 2 inhibitors; GLP1- RA: glucagon-like peptide 1 receptor agonists

Shared Risk Factors:

• HYPERTENSION: VASCULAR AND RENAL DAMAGE.

• DIABETES: KEY DRIVER OF NEPHROPATHY AND CVD.

• OBESITY, DYSLIPIDEMIA: INFLAMMATORY AND METABOLIC BURDEN.

• SMOKING, INACTIVITY: ACCELERATORS OF DISEASE PROGRESSION.

Breaking the cycle: Early Identification:

- Monitor eGFR, urine ACR annually in high-risk groups.
- Use QRISK3 with renal markers.
- Screen for early signs of heart failure.
- Each chronic disease review is a chance to assess CV & kidney risk.

Integrated Management: Therapies That Count

- BP control with ACEi/ARBs.

Empower patients with lifestyle coaching in every contact.

Statins for lipid control in CKD.

SGLT2 inhibitors: Protect kidneys and heart.

.**EMPA-KIDNEY trial (2022):** Empagliflozin cut CKD progression risk by 28% **DAPA-HF/DAPA-CKD:** Dapagliflozin reduced heart failure hospitalisations and CKD progression

Consider usefulness of other therapies - MRA, GLP-1 RAs

Holistic, Multimorbidity Management

- Avoid disease silos—integrate care plans.
- Regular medication reviews.
- Educate and involve patients in shared decisions.
- Support self-management and address health literacy.

THE NURSE'S PIVOTAL ROLE

Initiate conversations using MECC principles.

Screen and risk stratify.

Monitor and follow-up.

Coordinate with wider teams.

Motivate, educate, empower.

Any contact → Ask, Advise, Act!

Putting Every Contact to Work: Nurse Actions that Count

Routine Interaction	Opportunity to Act
BP Check	Screen for albuminuria (ACR), talk about home BP monitoring
Diabetes Review	Flag QRISK3 score, assess CKD risk, reinforce SGLT2i or statin use
Weight/BMI Check	Offer brief lifestyle intervention or signpost to local services
Medication Review	Check for beneficial medications ACEi/ARB in CKD & HTN discuss key medication benefits e.g. SGLT2i, educate on adherence
COPD/Asthma Review	Ask about heart failure symptoms (breathlessness overlap), assess CVD risk
NHS Health Check	Educate on how diabetes & CKD impact heart risk, emphasize interconnectedness
Casual conversation	Use MECC to prompt behaviour change in an open, non-judgmental way, planting seeds for future discussions.

Final Thoughts

References

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Thank You

Questions, reflections, or ideas on how to embed this practically?

Let’s discuss!