



Royal Perth Hospital
Nurse Practitioner – (Nephrology)
CLINICAL PRACTICE PROTOCOL (CPP)
TREATMENT OF RENAL ANAEMIA WITH
ESA's



| Scope | | Outcomes |
|---|--|---|
| Nurse Practitioner | <ul style="list-style-type: none"> • CKD patients with normocytic, normochromic anaemia referred by a Nephrologist • Hb < 100g/L • eGFR <60ml/min | Patients identified for treatment with ESA according to RPH DTC ESA policy |
| Exclusion Criteria | <p>ESA therapy requiring an authority prescription will be initiated by a Nephrologist and then referred to the Nephrology NP for ongoing management</p> <p>Consider referral to Nephrology Consultant in the following situations:</p> <ul style="list-style-type: none"> • Pregnancy • Active untreated infections • Obvious source of blood loss • Complicated anaemia (e.g. malignancy, haemoglobinopathies, haemolysis) | Patients identified for management in consultation (or only) by a Nephrologist |
| Initial assessment and interventions | | |
| Primary Survey / History | <ul style="list-style-type: none"> • Bleeding (GIT loss / menorrhagia) • NSAID therapy / anticoagulant use • ESA therapy • Iron or vitamin deficiencies • Inflammation / infection • Secondary hyperparathyroidism • Medication interactions • Coexisting medical conditions • Malnutrition | <p>The need for ESA therapy intervention will be identified</p> <p>Identification of additional causes of anaemia will be managed in consultation with a Nephrologist</p> |
| Focused clinical assessment | <ul style="list-style-type: none"> • Weight • Blood pressure | Dosage calculation Hypertension to be managed prior to ESA initiation in consultation with a Nephrologist |



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| Working diagnosis and Investigations | | Outcomes |
|---|--|--|
| Pathology | <ul style="list-style-type: none"> • FBC • Iron Studies • CRP • Vitamin B12 level • Red Cell Folate • UEB • Calcium • Phosphate • PTH | Abnormal pathology will be identified |
| Interpretation of results (diagnostic features) and management decisions | | Outcomes |
| Diagnosis | <ul style="list-style-type: none"> • Interpretation of pathology to identify potential causes of hyporesponse to anaemia management • ESA will be adjusted according to interpretation of pathology | Hypo responsiveness and anaemia will be managed |
| Patient Discharge Education | | Outcomes |
| Follow-up | <ul style="list-style-type: none"> • Verbal instructions from Nephrology NP • Written patient information package • Pathology forms • ESA prescription | Ensure patient understands treatment and follow up |
| Referrals | <ul style="list-style-type: none"> • Silver Chain • GP | Patient is referred to service required |
| Medication Education | <ul style="list-style-type: none"> • Verbal instructions from Nephrology NP • Instruct patient on administration technique | Patient is able to self administer ESA |
| Certificates | <ul style="list-style-type: none"> • Absence from work certificates • Other certificates as deemed appropriate | |



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| Medications | | Outcomes |
|---|--|---|
| All medication will be stored, labelled and dispensed in accordance with hospital policy and relevant legislation | | |
| S100 ESA | <p>Epoetin Alfa: Initial, IV/SC 50 units/kg 1-3 times a week.</p> <p>Epoetin Beta: SC, initially 60 units/kg/week, as a single weekly dose. IV, initially 120 units/kg/week as 3 divided doses.</p> <p>Darbepoetin Alfa: Initial, SC/IV 0.45 micrograms/kg once a week.</p> | <p>Adjust ESA as per PI to reach target Hb 120g/L (Hb range 110g/L – 130g/L)</p> <p>Patients will be treated with ESA according to the RPH DTC ESA policy</p> |



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Department of **Health**

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Clinical audit evaluation strategies

KPI's

Number of CKD patients on ESA therapy with
Hb in target range

References

AMH:

<http://www.amh.net.au.rplibresources.health.wa.gov.au/online/view.php?page=index.html>

CARI Guidelines: <http://www.kidney.org.au/cari/drafts/biochem.htm>

ANNA Nephrology Nursing, 2005 *Standards of Practice and Guidelines for Care*

Authorship and endorsement

(This Guideline has been developed in collaboration with the WADH Review Committee)

This CPP was written by:

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**This CPP has been reviewed and is endorsed
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Key to terms

AMH- Australian Medicines handbook
ANNA – American Nephrology Nurses Association
CARI – Caring for Australasian's with Renal Impairment
CKD – Chronic Kidney Disease
CRP – C-Reactive Protein
eGFR – estimated Glomerular Filtration Rate
DTC – Drug and Therapeutics Committee
ESA – Erythropoietin Stimulating Agent
FBC – Full Blood Count
GIT – Gastro Intestinal Tract
GP- General Practitioner
Hb- Haemoglobin
IV - Intravenous
KPI – Key Performance Indicators
NP – Nurse practitioner
NSAID – Non-steroidal Anti Inflammatory Drug
PTH – Para thyroid Hormone
RPH – Royal Perth Hospital
SC- Subcutaneous
UEB – Urea Electrolytes Bicarb

Date written: 4th January 2010
Reviewed:

Review date: