

### CKD Top Tips

<b>Why:</b>	<b>Chronic Kidney Disease:</b> Been around forever, but more widely recognised because of eGFR (estimated Glomerular Filtration Rate) reporting and history of QOF																					
<b>How:</b>	<p>Example: An 80 yr old woman who is not acutely ill has a blood test revealing creatinine 125 micromol/l, eGFR 38 ml/min, CKD stage 3B.</p> <p><b>Proceed as follows:</b></p> <ol style="list-style-type: none"> <li>1) Remember that CKD stage 3 affects 3-4% of the population and 30% of people over 75 years, most of whom do not need referral to renal services.</li> <li>2) Tell the woman and her family that she has slightly reduced kidney function which is found in one third of older people, rather than calling it Chronic Kidney Disease.</li> <li>3) Check if creatinine has been measured before: if so, is it stable? If not, repeat within two weeks.</li> <li>4) History – previous kidney problems: UTI, haematuria, stones, protein in urine (pregnancies, medicals), episodes of swelling; family; cardiovascular risk factors (esp hypertension, diabetes).</li> <li>5) Examination – is the bladder palpable (especially elderly men)? If it is - organise urgent ultrasound of urinary tract and discuss with urological services.</li> <li>6) Examination - check blood pressure.</li> </ol>																					
<b>What Next and When:</b>	<p><b>CKD stage defined by eGFR</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Stage</th> <th style="width: 20%;">eGFR (ml/min)</th> <th style="width: 50%;">Comment</th> <th style="width: 20%;">Proteinuria</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>&gt;90</td> <td>Must have other evidence of kidney disease</td> <td rowspan="5">Suffix P can be applied to any stage of CKD if ACR &gt;65mg/mmol</td> </tr> <tr> <td>2</td> <td>60-89</td> <td>Must have other evidence of kidney disease</td> </tr> <tr> <td>3A</td> <td>45-59</td> <td rowspan="3">Defined by eGFR alone</td> </tr> <tr> <td>3B</td> <td>30-44</td> </tr> <tr> <td>4</td> <td>15-29</td> </tr> <tr> <td>5</td> <td>&lt;15</td> <td></td> </tr> </tbody> </table> <p><b>CKD stages 1 and 2</b></p> <ol style="list-style-type: none"> <li>1) <b>Few patients with CKD 1 or 2 require referral to renal services.</b></li> <li>2) Urine – stick test for blood and protein; quantitate proteinuria by albumin creatinine ratio (ACR). Refer to renal services if no blood and ACR &gt;65mg/mmol, or blood and ACR &gt;30mg/mmol.</li> <li>3) Annual monitoring in primary care – check creatinine, potassium, cholesterol, ACR.</li> <li>4) BP control - '140/90 max, or 130/80 in patients with urinary ACR &gt;70mg/mmol (approx equivalent to 2+ or greater on dipstick test) is the ideal' ... but common sense must prevail.</li> </ol> <p><b>CKD stage 3</b></p> <ol style="list-style-type: none"> <li>1) <b>Few patients with CKD3 require referral to renal services.</b></li> <li>2) Urine – as for CKD stages 1 and 2.</li> <li>3) Other blood tests: haemoglobin, cholesterol.</li> <li>4) Action – stop poisons (NSAIDs).</li> <li>5) BP control – as above.</li> <li>6) Monitoring in primary care every 6-12 months - check creatinine and (2) and (3) and refer to renal services if eGFR declining by &gt;5 ml/min/year or reaches CKD stage 4.</li> <li>7) May need intravenous iron and/or epo for anaemia, but unlikely to do so – discuss with renal services.</li> <li>8) Immunization – influenza and pneumococcal.</li> <li>9) Patients with CKD stages 1-3B do NOT need routine measurement of calcium, phosphate, PTH and vitamin D levels.</li> </ol> <p><b>CKD stages 4 and 5</b></p> <p>As for stage 3, except (in contrast to Stage 3) please refer to or discuss with renal services, except in patients in whom:</p> <ol style="list-style-type: none"> <li>1) All appropriate investigations have been performed and there is an agreed and understood care pathway.</li> <li>2) Severe renal impairment is part of another terminal illness.</li> <li>3) Further investigation and management is clearly inappropriate.</li> </ol> <p>Standard clinical management (for those for whom it is appropriate) will include monitoring and treatment as for CKD stage 3, with:</p> <ol style="list-style-type: none"> <li>1) Check of eGFR every 3 months.</li> <li>2) Measurement of calcium, phosphate, PTH and vitamin D levels - treatment with phosphate binders and/or vitamin D analogues is likely to be required.</li> </ol>	Stage	eGFR (ml/min)	Comment	Proteinuria	1	>90	Must have other evidence of kidney disease	Suffix P can be applied to any stage of CKD if ACR >65mg/mmol	2	60-89	Must have other evidence of kidney disease	3A	45-59	Defined by eGFR alone	3B	30-44	4	15-29	5	<15	
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<b>Web links/References:</b>	<p><a href="#">The UK eCKD Guide</a></p> <p><a href="#">Edinburgh Renal Unit GP guide for CKD</a> – really helpful</p>																					
<b>Written by:</b>	Dr John Firth, Consultant Nephrologist, Addenbrookes Hospital, Cambridge. 12 October 2018																					