

# THE ROYAL COLLEGE OF PATHOLOGISTS OF AUSTRALASIA: TESTS, TREATMENTS AND PROCEDURES CLINICIANS AND CONSUMERS SHOULD QUESTION

*RCPA is the leading organisation representing pathologists and senior laboratory scientists in Australasia. Its mission is to train and support pathologists and to improve the use of pathology testing to achieve better healthcare.*

## 1. Do not perform surveillance urine cultures or treat bacteriuria in elderly patients in the absence of symptoms or signs of infection.

*Asymptomatic bacteriuria is a common finding in all ages and in association with other comorbidities. Treatment of asymptomatic bacteriuria is recommended in pregnancy but not in other clinical situations. Prophylaxis against development of symptoms prior to simple cystoscopy and prosthetic joint replacement is not recommended. Extensive guidelines from the Infectious Diseases Society of America (IDSA) are available for this condition and asymptomatic bacteriuria in catheterised patients. The use of chemical screening strips in asymptomatic patients may lead to unnecessary urine cultures when positive results are obtained. Increasing antibiotic resistance in urinary pathogens may be a consequence of unnecessary treatment.*

### Supporting Evidence

- Nicolle LE. 'Asymptomatic bacteriuria.' Current Opinion in Infectious Diseases 2014; 27(1): 90-96.
- Nicolle LE, Bradley S, Colgan S, Rice JC et al. 'Infectious Diseases Society of America Guidelines for the Diagnosis and Treatment of Asymptomatic Bacteriuria in Adults.' Clinical Infectious Diseases (CID) 2005; 40 (5): 643-654.
- Erratum in: Clinical Infectious Diseases (CID). 2005; 40(5): 643-54.
- Gupta K, Hooton TM, Naber KG et al. 'International Clinical Practice Guidelines for the Treatment of Acute Uncomplicated Cystitis and Pyelonephritis in Women: A 2010 Update by the Infectious Diseases Society of America and the European Society for Microbiology and Infectious Diseases.' Clinical Infectious Diseases (CID) 2011; 52 (5): e103-e120.
- Hooton TM, Bradley SF, Cardenas DD et al. 'Diagnosis, Prevention, and Treatment of Catheter-Associated Urinary Tract Infection in Adults: 2009 International Clinical Practice Guidelines from the Infectious Diseases Society of America.' Clinical Infectious Diseases (CID) 2010; 50(5): 625-63.

### Clinician resources

- [Decisions and management for asymptomatic bacteriuria](#) Read about [treatment for asymptomatic bacteriuria](#) on the NPS MedicineWise website.
- [Urinary tract infections](#) Read about [Urinary tract infections](#) on the NPS MedicineWise website

## 2. Do not perform PSA testing for prostate cancer screening in men with no symptoms and whose life expectancy is less than 7 years.

*Prostate cancer causes significant mortality and morbidity and all patients with concerns about their risks of having the disease and/or their prognosis if diagnosed, including the role of prostate specific antigen (PSA) testing, should discuss these with their doctor.*

*PSA testing has no proven value in the management of asymptomatic prostate cancer in men whose life expectancy is less than 7 years. Men in this age group often have co-morbidities that are likely to be of greater*

*clinical significance than the risk of prostate cancer*

### Supporting Evidence

- Bergdahl AG, Holmberg E, Moss S, Hugosson J. Incidence of prostate cancer after termination of screening in a population-based randomised screening trial. *Eur Urol* 2013;64(5):703-709
- Hugosson J, Carlsson S, Aus G et al. Mortality results from the Goteborg randomised population-based prostate-cancer screening trial. *Lancet Oncol* 2010;11(8):725-732.
- Roobol MJ, Kranse R, Bangma CH et al. Screening for prostate cancer: Results of the Rotterdam section of the European randomized study of screening for prostate cancer. *Eur Urol* 2013;64(4):530-539.
- Schroder FH, Hugosson J, Roobol MJ et al. Prostate-cancer mortality at 11 years of follow-up. *N Engl J Med* 2012;366(11):981-990.

### Clinician resources

- [PSA testing for prostate cancer](#) Download information about [PSA Testing for Prostate Cancer in Asymptomatic Men](#) from the National Health and Medical Research Council website

### 3. Do not perform population based screening for Vitamin D deficiency.

*The quality of the evidence for the health benefits of an adequate vitamin D status is highly variable. As the main source of vitamin D is UVB sunlight exposure, vitamin D status as assessed by the measurement of 25 hydroxyvitamin D (25OH-D) is correlated with time spent outdoors, exercise and other aspects of a healthy lifestyle including body weight. Vitamin D insufficiency is associated with low levels of exercise, obesity and/or reduced sun light exposure, such as occur more commonly in the elderly, the overweight, the frail and unwell or institutionalised and where there are occupational, racial or cultural reasons.*

*In individuals at risk of vitamin D deficiency, measurement of 25OH-D is an appropriate, case-finding strategy. Routine screening of healthy infants, children and adults (including pregnant women) for vitamin D deficiency is currently not recommended.*

### Supporting Evidence

- Ajuria-Morente I, Mar-Medina C, Bereciartua-Urbieta E et al. 'Lack of transferability between different immunoassays and LC-MS/MS for total 25-hydroxyvitamin D measurement and disagreement defining deficiency'. *Scand J Clin Lab Invest.* 2013;73(1):82-6
- Autier P, Boniol M, Pizot C, et al. 'Vitamin D status and ill health: a systematic review'. *The Lancet Diabetes & Endocrinology* 2014 (2):76-89
- Bolland MJ, Grey A, Gamble GD et al. 'The effect of vitamin D supplementation on skeletal, vascular, or cancer outcomes: a trial sequential meta-analysis'. *The Lancet Diabetes & Endocrinology* 2014:13
- Cavalier E, Lukas P, Crine Y, et al. 'Evaluation of automated immunoassays for 25(OH)-vitamin D determination in different critical populations before and after standardization of the assays'. *Clin Chim Acta.* 2014 (431):60-5
- Glendenning P, Chew GT. 'Controversies and consensus regarding vitamin D deficiency in 2014: whom to test and whom to treat?' *MJA* in press
- Meyer HE, Holvik K, Lips P. 'Should vitamin D supplements be recommended to prevent chronic diseases'. *BMJ* 2015 (350):321
- Theodoratou E, Tzoulaki I, Zgaga L et al. 'Vitamin D and multiple health outcomes: umbrella review of systematic reviews and meta-analyses of observational studies and randomised trials'. *BMJ*, 2014 (348): g2035

### Clinician resources

- [Targeted Vitamin D testing](#) Download information that [RCPA recommends targeted Vitamin D testing](#) from the Royal College of Pathologists of Australasia website.

- [Vitamin D testing](#) read the adapted patient resource on vitamin D testing needs link

#### **4. Do not perform serum tumour marker tests except for the monitoring of a cancer known to produce these markers.**

*The measurement of levels of certain tumour biomarkers is known to be helpful in monitoring the progress of specific cancers in response to treatment or in detecting changes in cancer activity or secondary or recurring cancer. In some rare circumstances they are helpful adjuncts in detecting specific cancers, where there is a strong known underlying predisposition or suspicion, such as in detecting liver cancer in patients with chronic hepatitis C and cirrhosis. However the testing for a broad range of biomarkers in patients with non-specific symptoms in the hope of finding an undetected cancer is not supported by the evidence from numerous systematic reviews. Tumour markers generally should not be used in the initial diagnostic pathway and are rarely diagnostic due to low sensitivity and specificity.*

##### **Supporting evidence**

- Association for Clinical Biochemistry & Laboratory Medicine (2013). "Recommendations as a result of the ACB national audit on tumour marker service provision. Recommended document. Available at <http://www.acb.org.uk/docs/default-source/guidelines/tumour-marker-guidelines.pdf>
- Duffy, MJ., McGing P. (2010). "Guidelines for the use of tumour markers." Association of Clinical Biochemists in Ireland (ACBI). Available at: <http://www.acbi.ie/Downloads/Guideline-tumour-markets-4th.pdf>
- National Institute of Health and Care Excellence (NICE) (2010). "Diagnosis and management of metastatic malignant disease of unknown primary origin". NICE clinical guideline 104. National Collaborating Centre for Cancer. Available at: <http://www.nice.org.uk/guidance/cg104>
- Sturgeon CM, Duffy MJ, Stenman UH et al. 'National Academy of Clinical Biochemistry laboratory medicine practice guidelines for use of tumor markers in testicular, prostate, colorectal, breast, and ovarian cancers'. Clin Chem. 2008;54 (12):e11-79.
- Sturgeon, CM, Hoffman, BR, Chan, DW et al (2008). 'Laboratory Medicine Practice Guidelines for use of tumor markers in clinical practice: quality requirements.' National Academy of Clinical Biochemistry (NACB). Available at: <http://www.aacc.org/science-and-research/practice-guidelines/tumor-markers-quality-requirements>

#### **5. Do not routinely test and treat hyperlipidaemia in those with a limited life expectancy.**

*Measurement of lipid levels is part of absolute risk assessment for the prevention of cardiovascular disease. This remains true beyond age 75, but by this stage age becomes the predominant risk factor. Absolute risk calculators accommodate this trend by fixing 75 years as the maximum age that can be included in the calculation. Clinicians need to consider whether or not the assessment and treatment of risk factors beyond this age is likely to yield clinical benefit within the patient's remaining life expectancy. On rare occasions lipid testing may provide relevant information in life threatening diseases, but in most critical illnesses lipid measurement for prevention of chronic disease will no longer be a priority.*

##### **Supporting evidence**

- National Vascular Disease Prevention Alliance "Guidelines for the Management of Absolute Cardiovascular Disease Risk" 2012: Summary of Recommendations p14.

##### **How was this list created?**

A list of ten items was compiled after reviewing international literature associated with the Choosing Wisely campaign in Northern America. The College's advisory committees were canvassed for further relevant evidence based literature and their expert opinions were sought.

The ten items were then adopted as a College Position Statement titled 'Inappropriate Pathology Requesting'.

This list was then sent to RCPA Fellows and Trainees based in Australia to rank the top five tests to include in the Australian Choosing Wisely initiative. The five items selected were approved by both the RCPA's Board of Professional Practice and Quality and the RCPA Board of Directors.

*Recommendations from The Royal College of Pathologists of Australasia about urinary tract infections, PSA testing, vitamin D deficiency screening, serum tumor marker tests and hyperlipidaemia.*