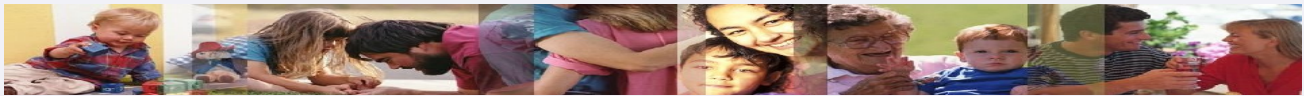


## NEWSLETTER



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## Calculating Creatinine Clearance for NOACs

The manufacturers of all non-vitamin K oral anticoagulants (NOACs - apixaban, dabigatran, edoxaban and rivaroxaban) recommend the use of the Cockcroft-Gault equation for calculating creatinine clearance (CrCl). Estimated glomerular filtration rate (eGFR) should not be used, as this can lead to inappropriate dosing in up to 50% of patients. Cockcroft-Gault equation allows appropriate dosing of NOACs and minimises the risk of over anticoagulation.

Even when using the Cockcroft-Gault equation, inaccuracies in calculating CrCl with the equation are noted in extremes of body weight, especially in those who are **obese (BMI ≥ 30kg/m<sup>2</sup>)**. A Cockcroft-Gault equation that recognises the need to adjust for body weight in obese individuals and will calculate a modified estimate of CrCl with a range that is based on ideal body weight (IBW) to adjusted body weight (ABW) is needed, e.g. the MD+CALC <https://www.mdcalc.com/creatinine-clearance-cockcroft-gault-equation>.



**Current CrCl calculators embedded within GP IT systems do not give a reliable estimate of CrCl for the adjustment of NOAC doses and should not be used.**

### Cockcroft-Gault Equation for NOACs

$$\text{CrCl (ml/min)} = \frac{[140 - \text{age(yrs)}] \times \text{Ideal body weight (kg) or Actual body weight if less (kg)} \times \text{Constant}}{\text{Serum creatinine } (\mu\text{mol/L})}$$

#### \* Accuracy of Cockcroft-Gault equation is influenced by body weight:

Actual body weight: use this for under weight patients (<18.5kg/m<sup>2</sup>), normal weight patients and overweight patients (BMI ≥18.5 and <30kg/m<sup>2</sup>).

Ideal body weight: use this for obese or morbidly obese patients (BMI ≥30kg/m<sup>2</sup>). Calculate CrCl using ideal body weight and actual body weight that define the lower and upper boundaries of the CrCl. If the difference crosses over a NOAC dosing threshold, then assess bleeding and thrombosis risk to decide on suitable dose.

\*\* Constant = 1.23 for males and 1.04 for females

#### Action

- Do not use eGFR to calculate CrCl in patients taking NOACs; use Cockcroft-Gault equation instead.
- **Do not use current CrCl calculators embedded within GP IT systems for patients taking a NOAC.**
- If using an on-line Cockcroft-Gault calculator, ensure you use one that adjusts for body weight in **obese or morbidly obese patients (BMI ≥ 30kg/m<sup>2</sup>)**, e.g. MD+CALC.

(Ref — [South East London Area Prescribing Committee guidance: Calculating Creatinine Clearance for DOACs; PrescQIPP Anticoagulation bulletin, Oct 2017](#))

## Supply Issues: Bactroban® Nasal Ointment

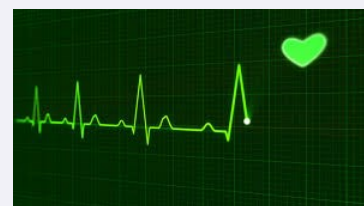
Bactroban® (mupirocin 2%) nasal ointment is currently unavailable. It is anticipated that the product will be back in stock towards the end of Q1 2018. In the meantime, UKMi have published a shortages memo, which provides advice on clinical alternatives. This is available at the following link: <https://www.sps.nhs.uk/articles/shortage-of-bactroban-mupirocin-nasal-ointment/>. Bactroban® nasal ointment is licensed for the elimination of nasal carriage of staphylococci, including methicillin resistant Staphylococcus aureus (MRSA). Prescribers are reminded that local guidance recommends that mupirocin is reserved for the treatment of MRSA only.



## Quinine: Time To Review

Quinine is well known to have effects on the QT interval. A [2017 routine EU review](#) recommended that warnings for dose-dependent QT-prolonging effects should be present in the product information for all quinine-containing medicines. Product information should now contain warnings to use caution if prescribing quinine in patients with conditions that predispose to QT prolongation, such as patients:

- with pre-existing cardiac disease or
- with electrolyte disturbances or
- taking other medicines that prolong the QT interval, e.g. tramadol, citalopram, pregabalin, amitriptyline, macrolide antibiotics.



Previously, the [MHRA](#) issued advice that quinine is not a routine treatment for nocturnal leg cramps, and should only be used when cramps regularly disrupt sleep. Treatment should be interrupted every three months to reassess. Subsequently, quinine was added to the [HSCB Limited Evidence list](#) (products on this list must not be routinely prescribed and should be reviewed to ensure that they are used only in the approved circumstances).

A quinine review tool is available on the [Primary Care intranet](#) to determine continuing need for quinine when used for nocturnal leg cramps.

### Action:

- GP practices are asked to review patients who are currently prescribed quinine, for potential interaction with medicines or conditions that predispose to QT interval prolongation.
- GP practices are asked to review patients who are currently prescribed quinine for more than three months to ascertain the continuing need for treatment.

## Ways To Access the BNF and BNFC Electronically

- Directly via BNF website: <https://bnf.nice.org.uk/> - no need to register.
- Sign up for free annual subscription via Medicines Complete: <https://www.medicinescomplete.com/about/index.htm> — click on “subscribe”, then chose the NHS or Non-commercial option and submit your details as directed.
- Via the ‘BNF & BNFC App’ — available to download from the AppStore for iOS devices, and Google Play for Android devices. This version does not require an Athens password.

**BNF**  
**BNFC**

## NICE GUIDANCE — NORTHERN IRELAND SERVICE NOTIFICATIONS

**Service Notifications have been issued in Northern Ireland for the following:**

- [NICE TA461](#) — Roflumilast for treating chronic obstructive pulmonary disease
- [NICE TA463](#) — Cabozantinib for previously treated advanced renal cell carcinoma
- [NICE TA464](#) — Bisphosphonates for treating osteoporosis (part review of TA160 and TA161)
- [NICE TA466](#) — Baricitinib for moderate to severe rheumatoid arthritis
- [NICE TA467](#) — Holoclair for treating limbal stem cell deficiency after eye burns
- [NICE TA471](#) — Eluxadoline for treating irritable bowel syndrome with diarrhoea.
- [NICE TA473](#) — Cetuximab for treating recurrent or metastatic squamous cell cancer of the head and neck (review of TA172)
- [NICE TA474](#) — Sorafenib for treating advanced hepatocellular carcinoma (review of TA189)

**Not recommended:**

- [NICE TA489](#) — Vismodegib for treating basal cell carcinoma; [NICE TA494](#) — Naltrexone –bupropion for managing overweight and obesity.

## MANAGED ENTRY DECISIONS

The following medicines were considered in January as part of the Northern Ireland Managed Entry process. **Please refer to the Managed Entry section of the Northern Ireland Formulary website for full details on Managed Entry decisions:** <http://niformulary.hscni.net/ManagedEntry/MEDecisions/Pages/default.aspx>

|  |   |  |
|--|---|--|
| Abatacept (Orencia®)<br>Aviptadil + phentolamine (Invicorp®)<br>Brentuximab vedotin (Adcetris®)<br>Glecaprevir + pibrentasvir (Maviret®)<br>Golimumab (Simponi®)<br>Ibrutinib (Imbruvica®) | Mercaptamine bitartrate (Procybsi®)<br>Obinutuzumab (Gazyvaro®)<br>Olaratumab (Lartruvo®)<br>Osimertinib (Tagrisso®)<br>Palbociclib (Ibrance®)<br>Pegvisomant (Somavert®) | Pembrolizumab (Keytruda®)<br>Raltegravir 600mg film-coated tablets (Isentress®)<br>Ribociclib (Kisqali®)<br>Tiotropium (Spiriva Respimat®) |
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This newsletter has been produced for GPs and pharmacists by the Regional Pharmacy and Medicines Management Team. If you have any queries or require further information on the contents of this newsletter, please contact one of the Pharmacy Advisors in your local HSCB office:

Belfast Office: 028 9536 3926

South Eastern Office: 028 9536 1461

Southern Office: 028 9536 2104

Northern Office: 028 9536 2845

Western Office: 028 9536 1010

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