MedicinesUpdate

NHS Greater Glasgow and Clyde

September 2014 ◆ Produced by NHS Greater Glasgow and Clyde Area Drug and Therapeutics Committee

This edition contains articles on:

Welcome to Medicines Update

To coincide with the launch of the new GGC Prescribing App and the updated website, the PostScript bulletins have been reviewed and will now be published as Medicines Update. Look out for them on the app and the website.

Voriconazole adverse effects

Voriconazole is licensed for invasive aspergillosis and is on the Formulary for specialist use only. In May 2014, the MHRA highlighted the additional risk of phototoxicity and skin squamous cell carcinoma associated with voriconazole. It is important that GPs are also aware of these risks as patients with symptoms may present initially in primary care. GPs should consider adding this to their practice systems if a patient is prescribed it from hospital.

These severe adverse events have been reported with long term treatment. The duration of therapy should be as short as possible and treatment of more than 6 months should only be considered if benefits outweigh potential risks.

Prescribers should:

- Advise all patients (including children) to avoid intense or prolonged exposure to direct sunlight during voriconazole treatment.
- Advise patients to use measures such as protective clothing and high factor sun screen.
- Advise patients to report phototoxic reactions.
- Seek consultation from a dermatologist if phototoxic reactions occur, and consider discontinuation of voriconazole.
- Perform dermatologic evaluation on a regular basis.
- Discontinue voriconazole if premalignant skin lesions or skin squamous cell carcinoma is identified

More information on prescribing voriconazole safely can be found in a previous article here. A patient alert card about dermatological side effects and evaluation is available from Pfizer.

GGC Medicines App

The free GGC Medicines App for iPhone® and iPad® is available to download. An Android® version will follow. The app contains the Adult Therapeutic Handbook, access to the Medicines Update bulletins, access to the GGC Adult Formulary and dosing calculators for gentamicin and vancomycin in adults in NHSGGC.

NHSGGC contributions to Glasgow 2014 Medical Services

Although the Commonwealth Games lasted only 11 days, planning has taken many years. One of the things spectators wouldn't be aware of was the effort that had gone into planning the medical services for athletes, team officials and the other accredited people required to make the Games a success.

The medical services were based at the Polyclinic within the athlete village in Dalmarnock, with smaller satellites at the Edinburgh and Dundee villages set up for diving and shooting events respectively as well as a clinic at the Games Family Hotel. There were also medical teams for athletes at competition venues with crowd doctor and first aid support for the spectators. This was all complemented by the Scottish Ambulance Service.

The polyclinic was a multidisciplinary environment with medical and nursing staff covering emergency medicine, sports medicine and immediate care. Other services included imaging (with a mobile CT and MRI scanner, X-ray and ultrasound), optometry, dentistry, podiatry, physiotherapy, sports massage and pharmacy.

NHSGGC staff and contractors were involved in a variety of roles; Dr John MacLean, Chief Medical Officer for the Games, is a Glasgow GP; Dr Jonny Gordon, Deputy CMO, is an emergency medicine consultant at the Victoria Infirmary and Gerry McLaughlin, Polyclinic Manager is charge nurse for A&E at the Royal Alexandra Hospital.

Liz Mendl, General Manager of Glasgow 2014 Medical Services and Anti-doping convened a Medical Services Forum to help plan the services and ensure appropriate standards, training and referral

procedures into the NHS were in place. The Forum also had a number of NHSGGC representatives including Gillian Penrice (Public Health), Angela Carson (optometry), Annmarie Sinclair (Diagnostics), Audrey Thompson (Pharmacy), Paul Ryan (primary care), Anne Harkness, (Director of Emergency Care and Medicine) and Louise Carroll (Civil Contingencies).

Reflections from NHSGGC Clyde-siders

We have asked a few of those working at Glasgow 2014 to share their personal experiences. Additional reflections are on the website.

Jonny Gordon, Emergency Medicine Consultant at the Victoria, Glasgow 2014 Deputy Chief Medical Officer.

As a sporting spectacle the Commonwealth Games were simply fantastic, but they also cemented once again the reputation that Glasgow and Scotland have in delivering excellence in health care. GGC were an integral component in supporting G2014 Medical Services. One example of this was the flexibility shown in allowing senior EM clinicians to volunteer for the Immediate Care Area of the Polyclinic working alongside senior nurses and senior GPs.

Every shift was covered by at least one Emergency Medicine consultant local to Glasgow. This unprecedented cover was in place 24 hours a day for 25 days and involved 13 consultants. This ensured that not only were the athletes and team officials guaranteed to see a senior decision maker, but that the clinicians they saw were also familiar with the local arrangements for healthcare in Glasgow.

We didn't expect to have many life-threatening emergencies to deal with, but the real benefit was that we had senior doctors in the Polyclinic who investigate less and refer less into hospital. This minimised impact on local services and the local population by preventing disruption of their services. Two to three consultants volunteered from each of the five hospitals within GGC to allow this to happen and we ensured only one consultant was away from their own unit at any time.

The integrated working of everyone in the Polyclinic was a joy and will be a lasting memory. We talk about legacy but perhaps one of the things we should look at in the NHS is how we can work better together between primary, secondary and specialist care as we were able to do in the Polyclinic.

Paul Ryan, Clinical Director in Glasgow City CHP, North East Sector and primary care clinical expert for Glasgow 2014.

A small group of GPs and nurses provided 24 hour cover to the Commonwealth Games Federation based at the Hilton Hotel and the wider Games family and Technical Officials based at satellite hotels. A medical centre was established at the Hilton with a daily clinic for press and officials at the SECC.

The service was designed to deliver Primary Care services. There were 135 attendances during the 16 days of operation. A variety of procedures were carried out including bandaging, wound dressings and anticoagulation monitoring. There were also dental infections, abrasions and isolated cases of gastroenteritis. Many presentations were for mislaid medicines and it was apparent many countries use drugs less familiar to us which are commonly prescribed by trade names. We managed to decipher and issue appropriate prescriptions with the aid of search tools and some faxes from the home country. The lesson is to remind your patients to take a note of their medication when travelling abroad.

Whilst the work was not particularly onerous, there were some hospital admissions. The most surprising aspect was the number of delegates who attended the Games with serious underlying health problems and we played a role in allowing these people to support their teams in the competition. Overall the experience was a rewarding one.

Emma Sheppard, a Glasgow GP, worked in the Polyclinic in the athlete village. She writes:

The polyclinic experience has been fascinating. Working directly with practitioners such as public health doctors, physio and emergency doctors has helped mutual understanding of roles. Having a common goal and a willingness to succeed allowed improvements to be made to systems with enviable speed. There was the luxury of minutes rather than months waiting times for patients to see dentists, orthopaedics or physio. Direct work with pharmacists and those with previous experience has helped in understanding anti doping regulations.

The number of people travelling many miles to come to Scotland meant many of us had an impetus to update our knowledge on the management of fever in the returning traveller.

Highlights were driving the patient retrieval buggy round the athlete village and celebrity spotting as we were sited right on the village green.

Sean MacBride-Stewart, a pharmacist with the Central Prescribing Team also took part.

What struck me most was the scale of the planning to ensure the athletes could perform at their peak. Some of the teams did this from their own staff, but for the smaller teams the healthcare needs were mainly met by the volunteer health professionals.

In pharmacy we dispensed over 2,000 prescriptions and providing advice for a variety of minor ailments.

Being located in the reception area of the Polyclinic also meant dealing with the unusual; working with physiotherapy the replacement of the rubber bungs (actually called ferrules) of the walking sticks of a power lifter. Locating all the healthcare professionals together in the Polyclinic made it easy to iron out problems as they cropped up, and there was a real willingness from everyone there to work that way.

Fiona Love, Practice Nurse in East Renfrewshire was also based in the Polyclinic and says:
I was working towards the end of the Games when demand was lower since most people had already competed. Most of the interactions were for relatively minor injuries or conditions and, unlike a typical GP practice population, the patient group did not have significant co-morbidities. However, patient interaction is the driving force of my Practice Nurse role and similarly with the Games patient group. For me, the value of my volunteering was an increased awareness and respect for the roles of my medical colleagues. Within the polyclinic we had emergency nurse practitioners, emergency medical consultants, pharmacists, dentists, podiatrists, optometrists, physiotherapists, sports medicine practitioners to mention but a few!

Anne Harkness, ECMS Director, writes about other support to Glasgow 2014 from NHSGGC:
Staff throughout NHS Greater Glasgow and Clyde played an important role both in supporting colleagues to volunteer and in treating those patients who needed more specialist care. Services had been planned jointly from the start and it was these close working relationships that helped make the Games medical services such a success.

30 athletes and 14 officials from 19 countries were referred to the NHS. Very few people needed admitted to hospital and most only stayed for a day or so. Some patients needed a specialist out-patient appointment, with the most frequent requests for ENT and orthopaedics referral. Only 10 of the Games Family attended Emergency Departments. Of course Glasgow was very busy during the Games and a number of visitors and Clyde-siders came to Emergency Departments.

Staff can be proud of the way they supported the Games and the city and they all played a part in helping making the event such a success.

Thanks to Liz Mendl, General Manager, Medical Services and Anti-doping for permission to publish and to the Commonwealth Games Federation who own clinical data.

Case Study: Safe management of midazolam

A concern was raised by social work over the inability to track a number of doses of midazolam in a patient's home. The patient has a complex history and is classed as a vulnerable adult. Midazolam is used for treatment of seizures and is a schedule 3 controlled drug (CD). It was previously a schedule 4 CD which has lower restrictions, but controls on use were tightened due to concerns about its potential for misuse, including use as a date rape drug.

The community team were under the impression that the GP practice would only issue prescriptions for midazolam on their request, however a recent check of stock highlighted that a prescription had been generated that the team were unaware of. This prompted a closer review of seizure diaries and GP prescribing pattern.

There were three prescriptions issued by the GP practice over the past two years without the knowledge of the community team. It was not always clear who had collected these prescriptions or whether they were intended for a care service or the patient's home. Examination of seizure history and discussion with the patient and his main carer was not able to account for the additional prescribed doses. On one occasion, there was the claim that leakage of medicines meant that a full bottle had to be destroyed and replaced and several months later, although six doses should have remained, the main carer was adamant that the bottles were empty and thrown out. This raised a concern that someone was potentially ordering and misappropriating the midazolam.

The local adult protection committee lead was informed, however as there was no evidence of any crime being committed, it was not appropriate for the police to investigate. Clinical review was undertaken which demonstrated no evidence of harm to the patient or anyone else. At the end of the investigation there was no possibility of proving what has happened to the medication and there may have been an entirely innocent explanation.

The focus was then on trying to prevent recurrence. For any drug liable to misuse, practices may wish to consider the following steps:

- Move midazolam from repeat to acute on the prescribing system. This allows greater control over the issue of any prescription.
- The GP practice has added notes to the patient's record to ensure that midazolam is only issued on request from named individuals in the learning disabilities team.
- The community team have tightened their procedures to ensure there is clear discussion and agreement with patients, carers and GP practices on procedures for ordering medication.

GGC Medicines App

Download on the App Store

www.ggcmedicines.org.uk

Contact us: medicines.update@ggc.scot.nhs.uk

Thickening of Liquid Medications

Patients with dysphagia who are on thickened fluids to reduce the risk of choking, will also require any large volume liquid medications, eg Laxido® to be thickened. All liquids given to a dysphagic patient should be thickened to the appropriate viscosity (stage) as recommended by the patient's Speech and Language Therapist.

NHSGGC's preferred thickener for patients over the age of three years is Nutilis Clear®; a gum based thickener. Nutilis Clear is licensed to thicken food and drinks not medicines, so thickening of any liquid medications to the recommended viscosity may require more or less thickener than is stated in the instructions on the side of the tin. Any thickening of a liquid medicine is using the medication off label and as such prescribing should be in line with the principles of NHSGGC Unlicensed Medicines Policy. For more information, contact the Central Prescribing Team.

ADTC decisions

The full list of decisions is here including:

- Beclometasone dipropionate and formoterol fumarate dihydrate metered dose inhaler 100microgram / 6microgram (Fostair®) is licensed for symptomatic treatment of patients with severe COPD (FEV1 <50% predicted normal) and a history of repeated exacerbations, who have significant symptoms despite regular therapy with long-acting bronchodilators. This medicine is already included in the Preferred List for asthma but is now added to the **Adult Preferred List** in accordance with current NHSGGC COPD Guidelines.
- Botulinum toxin type A powder for solution for injection (BOTOX®) for the management of bladder dysfunctions in adult patients who are not adequately managed with anticholinergics: overactive bladder with symptoms of urinary incontinence, urgency and frequency. Restricted to patients who have failed appropriate oral treatment options. Added to the **Adult Total Formulary.**

Atrial fibrillation guideline updated

The GGC Heart MCN guideline for atrial fibrillation (AF) management has been updated. The objectives of treatment are:

- Prevention of stroke
- Symptom relief
- Optimal management of concomitant cardiovascular disease
- Rate control
- Correction of rhythm disturbance

The main changes affect the flowchart on prevention of thromboembolism in non-valvular AF (NVAF) using $CHADS_2$ and CHA_2DS_2-VASC scores. The option of a novel oral anticoagulant (NOAC) for new diagnoses as an alternative to warfarin is available. There is guidance on the pros and cons of different products. For patients with very low risk, there is a message about when no anti-thrombotic is indicated.

The Guidance on anticoagulant choice in patients with NVAF has also been updated. Information is provided on estimation of renal function using Cockcroft and Gault to calculate creatinine clearance, as this is the measurement defined in the manufacturer's summary of product characteristics for determining dose adjustments in renal impairment.

Rivaroxaban is indicated in patients with NVAF restricted to those:

- currently receiving warfarin who have poor INR control despite evidence that they are complying
- with allergy or intolerable side effects from coumarin anticoagulants
- for whom warfarin has been clinically excluded as a therapeutic option but anticoagulation is deemed safe and appropriate