Welcome to the 6th Non-medical prescribers’ bulletin. This bulletin aims to provide health information to support non-medical prescribers in evidence based practice and professional development to enable best patient care and decision making.

Contents

Focus on: antibiotics, cancer, cardiovascular system/cardiology, communicable disease, dermatology, diabetes, health promotion, hypersensitivity/allergies, men’s health, mental health, nervous system/neurology, obstetrics/gynaecology, older people, paediatrics and child health, pain management, palliative care, primary care, respiratory care, rheumatic diseases, sexual health, smoking, women's’ health, wound care, professional concerns, physiotherapy, pharmacy and the pharmacist role, public health, national guidance and new resources.

*Where a phrase or word is underlined indicates a hyperlink*

**Antibiotics/antibacterials**

**Absence of evidence: antimicrobial prescribing in neonates, elderly and pregnant women**

Data on antimicrobial dosing is lacking for neonates and elderly patients. With emerging antimicrobial resistance, there is an urgent need for pharmacokinetic and safety data for existing antimicrobials to optimise current dosing and therapeutic drug monitoring regimens. Furthermore, in the development of new antimicrobials, drug trials must be extended to include neonates and elderly patients. *Internal Medicine Journal; Jan 2017*

**Nurses can influence prescribing antibiotics: Making sensitivity to medication -- via the nursing management of respiratory tract infections -- a global priority in primary care.**

This article reports on the role of nurses in prescribing antibiotics for respiratory tract infections (RTIs) in Great Britain. The number of nurses qualified to prescribe has increased to 31,000. These nurses predominantly work in primary care. A study by researchers at Cardiff University in Wales examined the impact of experiences of non-medical prescriber management of RTIs on patient satisfaction. *Primary Health Care; Jul 2017*

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How Antibiotics Should be Prescribed to Hospitalized Elderly Patients with Community-Acquired Pneumonia

The research recommends that elderly patients hospitalized with community-acquired pneumonia (CAP) should be administered antimicrobials in the emergency department prior to transfer to the ward or intensive care unit (ICU). For ward patients, a beta-lactam with a macrolide or a respiratory fluoroquinolone alone should be given to cover typical and atypical pathogens. For ICU patients, a beta-lactam with either a macrolide or a fluoroquinolone should be given. Other regimens are indicated if methicillin-resistant Staphylococcus aureus or Pseudomonas aeruginosa is a concern. Patients who are hemodynamically stable and can tolerate oral intake can be considered for switch therapy as well as discharge if other co-morbidities are stable and a safe disposition plan exists. A number of special concerns for the elderly include noting adverse effects from antimicrobials, being watchful of comorbidity exacerbations, and vaccinating for pneumococcus and influenza. Drugs and Aging; Jan 2017

Antibiotics for acute respiratory tract infections: a mixed-methods study of patient experiences of non-medical prescriber management

NMPs demonstrate an understanding of patient expectations of RTI consultations and use a range of non-antibiotic management strategies, particularly those resembling a patient-centred approach. Overall, patients' expectations were met and prescribers were not unduly influenced by patient expectations for an antibiotic. Patients were satisfied with the consultation, indicating that strategies used by NMPs were acceptable. However, the lower levels of satisfaction among patients who expected but did not receive an antibiotic indicates that although NMPs appear to have strategies for managing RTI consultations, there is still scope for improvement and these prescribers are therefore an important group to involve in antimicrobial stewardship [BMJ Open 2017]

The Antibiotic Prescribing Pathway for Presumed Urinary Tract Infections in Nursing Home Residents

Due to the high rates of inappropriate antibiotic prescribing for presumed urinary tract infections (UTIs) in nursing home residents, this study sought to examine the antibiotic prescribing pathway and the extent to which it agrees with the Loeb criteria. The research examined the prescribing pathway from presenting illness, to the prescribing event, illness work-up and subsequent clinical events including emergency department use, hospitalization, and death. Non-specific signs/symptoms appeared to influence prescribing more often than urinary tract-specific signs/symptoms. Prescribers rarely stopped antibiotics, and a minority prescribed for overly long periods. Providers may need additional support to guide the decision-making process to reduce antibiotic overuse and antibiotic resistance. Journal of the American Geriatrics Society; Aug 2017

Nurses dispense most, study finds

The article discusses a 2012 study looking at the patterns of dispensed non-medical prescribers’ prescriptions for antibiotics in primary care revealing that nurses prescribe more than any other NMP in England. Between 2011 and 2015, NMPs (nurses, pharmacists and allied health professionals) prescribed more than 98 million prescription items. Of this figure, nurses dispensed more prescriptions than any other group of NMPs at more than 93 million. The study also reveals that the number of nurses who have independent prescribing capability in England rose by 1.8% from 2011 to 2015. Primary Health Care; Aug 2017
Patterns of dispensed non-medical prescriber prescriptions for antibiotics in primary care across England: a retrospective analysis

Between 2011 and 2015, the number of NMPs (mainly nurses but also pharmacists and small numbers of allied health professionals) in England, who have independent prescribing capability, has risen by over one-third to nearly 30000. Most of these prescribers provide a broad range of services in primary care. The rate of dispensed NMP prescriptions for antibiotics over this period has increased, as has the percentage of all primary care antibiotics dispensed that were prescribed by NMPs, which is currently nearly 8%. The most commonly dispensed NMP antibiotic prescriptions were penicillin, sulphonamides, trimethoprim, macrolides, tetracyclines and nitrofurantoin. Journal of Antimicrobial Chemotherapy, Volume 72, Issue 10, 1 October 2017

Antibiotic prescribing frequency amongst patients in primary care: A cohort study using electronic health records

Reducing inappropriate antibiotic prescribing in primary care is a public health priority. This study hypothesized that a subset of patients account for the majority of antibiotic prescriptions in primary care. It investigated the relationship between the total amount of antibiotics prescribed, individual-level antibiotic use and comorbidity. This cohort study took electronic health records from 1 948 390 adults registered with 385 primary care practices in the UK in 2011-13. The presence of any comorbidity increased the prescribing rate by 44%; rates of prescribing to women exceeded those in men by 62%. In conclusion half of antibiotics prescribed to adults in primary care were for <10% of patients. Efforts to tackle antimicrobial resistance should consider the impact of this on total prescribing [Journal of Antimicrobial Chemotherapy 2017]

Cancer care

Newly qualified nurses need more experience before they prescribe, says senior cancer nurse

The article discusses the potential impact of the proposal of the Nursing and Midwifery Council (NMC) to allow newly qualified nurses to prescribe, and the need for nurses to have more experience in the nursing practice before learning to prescribe according to senior cancer nurse Nicola Beech. Cancer Nursing Practice; Jul 2017

Nurses can influence prescribing antibiotics: Making sensitivity to medication – via the nursing management of respiratory tract infections – a global priority in primary care.

The article reports on the role of nurses in prescribing antibiotics for respiratory tract infections (RTIs) in Great Britain. The number of nurses qualified to prescribe has increased to 31,000. These nurses predominantly work in primary care. A study by researchers at Cardiff University in Wales examined the impact of experiences of non-medical prescriber management of RTIs on patient satisfaction. Primary Health Care July 2017
Nurse-led repeat prescriptions for patients with controlled hypertension - a randomized controlled trial

This study looked at repeat prescribing for patients with well-controlled hypertension without a direct doctor consultation taking place. It sought to determine if repeat prescriptions by nurses could lead to non-inferior disease control in patients with well-controlled hypertension when compared with usual care, and if repeat prescribing was acceptable and safe for these patients. The study found that Nurse-led repeat prescribing was acceptable, safe, and non-inferior to usual care in hypertension management among controlled hypertensive patients. Journal of Hypertension; Sep 2017

The Digital Drag and Drop Pillbox Design and Feasibility of a Skill-based Education Model to Improve Medication Management.

This model involves a skill-based educational approach that engages patients and providers, measures performance, and generates reports of medication management skills. To determine feasibility a single-cohort convenience sample of patients hospitalized with heart failure was taught pill management skills using a tablet-based D-3 Pillbox. Medication reconciliation was conducted, and aptitude, performance, accuracy and feasibility were measured. Most patients in the study reported that the D-3 Pillbox was easy to read (78%), easy to repeat-demonstrate (78%), and comfortable to use (tablet weight) (75%). Accurate medication recognition was achieved by discharge in 98%, but only 25% reported having a "good understanding of my responsibilities." In conclusion, The D-3 Pillbox is a feasible approach for teaching medication management skills and can be used across clinical settings to reinforce skills and medication list accuracy. Journal of Cardiovascular Nursing; Sep 2017

Oral anticoagulants for stroke prevention in nonvalvular AF

Warfarin and direct oral anticoagulants (DOACs) have been shown to reduce the risk of stroke in patients with atrial fibrillation, yet many patients are still not being anticoagulated. This article discusses the barriers to the initiation of oral anticoagulants, in particular DOACs, and how these can be overcome. Prescriber; September 2017

Assessment and management of Raynaud’s phenomenon

Raynaud’s phenomenon (RP) is commonly encountered in primary care and can either be a primary condition or occur secondary to a wide range of underlying medical conditions and drug therapies. This article discusses the assessment and treatment of RP and the GP’s role in management.

Raynaud’s phenomenon (RP) is a common vasospastic condition characterised by episodic colour change of the extremities, often triggered by exposure to cold and/or emotional stressors. The purpose of this article is to describe the clinical spectrum of RP, the potential underlying causes, and an approach to assessment and management (including first and second-line drug treatments and the role of the GP). Prescriber July 2017
Management of angina in primary care  Key Points: Stable angina is a chronic, episodic condition that can be triggered by exertion, stress or cold weather * Glyceryl trinitrate can be used to treat and prevent acute episodes of angina. Patients need to be made aware of the common side effects and how to manage them * Beta-blockers or calcium channel blockers are first line antianginal medications for patients with more than two episodes of angina per week * Long-acting nitrates, nicorandil, ivabradine and ranolazine are second-line medications in the event of treatment failure or contraindication to the use of first-line treatments  Nurse Prescribing October 2017

Communicable Disease

Administering Steroids with HIV treatment boosting agents

Co-administration of a steroid with an HIV treatment-boosting agent such as ritonavir or cobicistat increases the risk of iatrogenic Cushing syndrome and subsequent secondary adrenal suppression. This article discusses the strategies to help prevent this and describes how to identify and manage such interactions [PRESCRIBER AUG 17]

Smallpox: How the West was won  Genocide’, ‘chemical weapons’ and ‘biological warfare’ are sadly all-too-familiar terms these days as wars continue to be waged throughout Africa and the Middle East. Yet they are nothing new. Following the European discovery of the Americas in 1492, the indigenous American population suffered a catastrophic four-century-long collapse in numbers... [NURSE PRESCRIBING AUG 17]

Dermatology  Dermatology prescribing update: Eczema  Nurse prescribers should be aware of evidence-based guidelines in eczema treatment, on which they need to base prescribing decisions and work with the patient on individual skin-care plans. Education and support in managing eczema is essential for patients of all ages (and carers of children and older people). This article explains the principles of eczema treatments in acute, sub-acute and chronic stages of eczema with emollients, topical corticosteroids, antibiotics, antimicrobials and antivirals, topical calcineurin inhibitors and antihistamines Nurse Prescriber July 2017

Dalbavancin: a new IV antibiotic for skin infections  Dalbavancin (Xydalba) is a new intravenous antibiotic for the treatment of acute bacterial skin and skin structure infections (ABSSSI) in adults. This article discusses its properties, efficacy and adverse effects. Prescriber September 2017

Dermatology prescribing update: Psoriasis  This article explains the principles of psoriasis topical treatments in managing chronic plaque psoriasis with emollients, topical corticosteroids, vitamin D analogues, coal tar and dithranol Nurse Prescribing September 2017

Solve the case: Tinea corporis (Ringworm)  Sophie Richards is a 26-year-old teaching assistant. She has recurring tinea corporis that is not responding to topical medication. This article uses a case history approach to illustrate the diagnosis and treatment of tinea corporis. Nurse Prescribing August 2017
Diabetes Pre-emptive diabetes medicines management to reduce first hypoglycaemic episodes facilitated by IT systems and nurse prescribing

This study reported a 61% reduction in recurrent hypoglycaemia from 2012-2015 following implementation of an alert system developed utilizing the Abbott PrecisionWeb Point-of-Care System TM. This detected patients experiencing hypoglycaemia, facilitating early intervention by diabetes inpatient specialist nurses (DISNs) to prevent subsequent episodes. Over this period, diabetes admissions increased 2.4% compared to 3.7% for other admissions. Hypoglycaemic episodes reduced from 861 to 722-16% in a year compared with 15% over the previous 3yrs. In conclusion the use of IT systems to identify patients with diabetes permitting early contact by DISN prescribers to initiate pre-emptive diabetes medication adjustment is effective in reducing first hypoglycaemic events. Diabetic Medicine; Mar 2017

Fiasp: a new faster-acting insulin as part formulation for diabetes

Fiasp is a new faster-acting formulation of insulin aspart that is absorbed more quickly than conventional insulin aspart (NovoRapid) following mealtime administration. This article describes its properties, efficacy and adverse effects Prescriber July 2017

Findings of the National Diabetes Inpatient Audit 2016

The National Diabetes Inpatient Audit’s latest findings on the quality of diabetes care provided to patients while they are in hospital in England and Wales highlights many areas where there is room for improvement, but inpatients remain mainly positive about their overall care. Prescriber July 2017

Managing diabetes in the presence of renal impairment

Chronic kidney disease is common in patients with diabetes and is associated with increased morbidity and mortality. This article discusses the challenges of maintaining good glycaemic control and addressing modifiable risk factors in patients with diabetes and renal impairment. Prescriber September 2017

Learning lessons from diabetes emergencies

Health care in the 21st century is complex. Clinicians deal with the challenges of an ageing population and care for people with multiple comorbidities including dementia. People receiving health care are vulnerable and organisations must ensure that patient safety issues are addressed. When incidents occur organisations must learn lessons and ensure that changes are made to reduce future risks and improve care. Nurses working at advanced level are in a unique position to contribute to this process by working with staff from the ward to the Trust board and drive change to ensure that we continue to develop an effective safety culture. Nurse Prescriber September 2017
Health Promotion [physical fitness and exercise]

Prescribing Exercise to Individuals with Disabilities: What Are the Concerns? Individuals with disabilities experience a disproportionate risk of cardiometabolic disease and are more likely to live sedentary lifestyles when compared with their able-bodied peers. Although complex factors explain these disparities, targeted exercise programs can improve the health outcomes of this population. When designing an exercise prescription it is important to consider the differences in medical history, mobility, and community barriers. By safely engaging individuals with disabilities in exercise programs, clinicians can promote inclusion and can contribute to positive health outcomes, ensuring that "Exercise is Medicine" is accessible to all. [Current Sports Medicine Reports July 2017]

Hypersensitivity/Allergies Allergic rhinitis [calculation skills] Allergic rhinitis is the term used to describe inflammation of the membranes lining the nose, as a result of sensitivity to allergens. It affects approximately 1 in 5 individuals in the UK. The most common allergens that result in allergic rhinitis include mould spores; dust/dust mites; pollen from grass, trees and weeds; work related allergens such as wood dust and latex; and animal allergens (National Institute for Health and Care Excellence (NICE), 2015). Symptoms include a blocked and/or itchy nose, nasal discharge and sneezing (NICE, 2015). Answers Nurse Prescribing October 2017

Men’s Health The continuing challenges of improving men’s health Cardiovascular disease, liver disease and colon cancer were among the areas discussed during the latest Men’s Health Conference held at the Royal Society of Medicine in June. Prescriber September 2017

Mental Health Dementia Reducing anti-psychotic prescribing for care home residents with dementia This article reports on the outcome and evaluation of the focused intervention training and support (FITS) into practice programme, a training and support programme for care home staff aimed at reducing inappropriate anti-psychotic prescribing for people living with dementia by implementing alternative psychosocial interventions. The programme successfully reduced anti-psychotic prescribing and improved staff knowledge and attitudes. Barriers and facilitators of implementation were identified at four key levels: the dementia care coach; the care home; the organisation; and external relationships. Crucial to success was the provision of dedicated time for dementia care coaches to implement, the ongoing support provided by the expert-practitioner role, and the quality of relationships with prescribers. The implications of these for the FITS into practice programme, other similar interventions, and the work of prescribers with care homes are discussed. Nurse Prescribing October 2017

Nervous System/Neurology Antiepileptic drug monotherapy for epilepsy: a network meta-analysis of individual participant data The evidence provided by this review supports current guidance that carbamazepine and lamotrigine are suitable treatments for individuals with partial onset seizures and also demonstrates that levetiracetam may be a suitable alternative. Evidence from this review also supports the use of sodium valproate as the first-line treatment for individuals with generalised tonic-clonic seizures (with or without other generalised seizure types) and also demonstrates that lamotrigine and levetiracetam would be suitable alternatives to either of these first-line treatments, particularly for those of childbearing potential, for whom sodium valproate may not be an appropriate treatment option due to teratogenicity [Cochrane Database of Systematic Reviews September 2017]
**Obstetrics and Gynaecology**  
**Genital Herpes: Silent but not ignored**  
The herpes simplex virus affects many people worldwide, and to date, there is no cure. Diagnosis is required to ensure correct treatment as many people are asymptomatic. **The main concern is risk of transmission during pregnancy to the neonate**, as it can have serious consequences to the baby. This article discusses the prevalence and risk factors for acquiring the virus, and the pharmacological, surgical, complementary and alternative treatment options. HSV-2 and its significance in pregnancy is also explored, including the management during and after pregnancy. *Nurse Prescribing* July 2017

**Older People**  
**Nurse interventions to improve medication adherence among discharged older adults: a systematic review**  
This study involved a systematic review of trials that assessed the effects of nursing interventions to improve medication adherence among discharged, home-dwelling and older adults. The review searched for controlled clinical trials and randomised CCTs (RCTs), published up to 8 November 2016 that evaluated the effects of nurse interventions conducted alone or in collaboration with other health professionals. Medication adherence was defined as the extent to which a patient takes medication as prescribed. In nine studies, adherence was higher in the intervention group than in the usual-care group, with the difference reaching statistical significance in eight studies. There was no substantial difference in increased medication adherence whether interventions were nurse-led or nurse-collaborative. In conclusion, both interventions moderately improved adherence among discharged older adults. *Age & Ageing* Sep 2017

**Immunisation in the elderly**  
There is an increase in infectious diseases, such as influenza and pneumonia, presenting in the elderly population, which can lead to a significant proportion of hospital admissions or morbidity. Vaccination is the most efficient strategy in preventing many diseases that affect this age group, such as Streptococcus pneumoniae and varicella zoster. This article will discuss the NHS national vaccination programme, and outlines three main vaccines that can help protect patients. These vaccine against influenza, pneumococcal disease and herpes zoster *Nurse Prescribing* September 2017

**Elderly polypharmacy patients’ needs and concerns regarding medication assessed using the structured patient-pharmacist consultation model** [SPPC ] The purpose of this study was to evaluate elderly polypharmacy patients needs and concerns regarding medication through the structured patient pharmacist consultation. Older patients on chronic treatment with ≥5 medications were asked to fill in the SPPC form. Out of 440 patients, 39.5% experienced problems, and 46.1% had concerns about medication use, 122 patients reported reasons for discontinuing treatment. **The main outcome** of the consultation was a better understanding of medication use (75.5%). Patients on benzodiazepines, anticoagulants, and beta agonists/corticosteroids, with atrial fibrillation and/or COPD, may have a higher potential for non-adherence and counselling patients based on the SPPC model may be particularly useful for patients with diabetes *Patient education and counselling* September 2017
Costs of vitamin D testing and prescribing among children in primary care

Vitamin D has attracted considerable interest in recent years, with a marked increase in diagnosis of vitamin D deficiency seen among children in clinical practice in the UK. The economic implications of this change in diagnostic behaviour have not been explored. This cohort study examines longitudinal trends in healthcare expenditure arising from vitamin D testing and prescribing for children in primary care in England, using the electronic healthcare records of 722,525 children aged 0-17 years held in The Health Improvement Network database. The total cost of vitamin D prescriptions and tests for children in primary care at the national level in England in 2014 was estimated to be 4.31 million. This indicates a marked increase in healthcare expenditure on vitamin D tests and prescriptions over the past decade. Future research should explore the drivers for this change in diagnostic behaviour and the reasons prompting investigation of vitamin D status in clinical practice [European Journal of Paediatrics; Aug 2017]

Childhood immunisation: The role independent prescribing can play in increasing uptake. The childhood immunisation programme is an important public health activity in which the independent prescriber has a key role to play. This article explores how the independent prescriber can contribute to the effective operation of the programme. [British Journal of School Nursing; Mar 2017]

Pain management

American Society for Pain Management Nursing Position Statement: Prescribing and Administering Opioid Doses Based Solely on Pain Intensity

The foundation of safe and effective pain management is an individualized, comprehensive pain assessment, which includes, but is not limited to, determining the intensity of pain if the patient is able to report it. An unforeseen consequence of the widespread use of pain intensity rating scales is the practice of prescribing specific doses of opioid analgesics based solely on specific pain intensity. Many factors in addition to pain intensity influence opioid requirements, and there is no research showing that a specific opioid dose will relieve pain of a specific intensity in all patients.

The American Society for Pain Management Nursing (ASPMN) holds the position that the practice of prescribing doses of opioid analgesics based solely on a patient’s pain intensity should be prohibited because it disregards the relevance of other essential elements of assessment and may contribute to untoward patient outcomes. Pain management nursing : official journal of the American Society of Pain Management Nurses; Jun 2016
A qualitative study of community nurses’ decision-making around the anticipatory prescribing of end-of-life medications.

The aim of this study was to explore community nurses' decision-making processes around the prescribing of anticipatory medications for people who are dying. Community nurses frequently initiate the prescribing of anticipatory medications to help control symptoms in those who are dying. However, little is known about their decision-making processes in relation to when they instigate anticipatory prescribing and their discussions with families and General Practitioners. A purposive sample of 11 Community Palliative Nurses and District Nurses working in one geographical area participated in the research. Data were collected between March and June 2016. Three themes were identified: Drugs as a safety net. Anticipatory medications give nurses a sense of control in last days of life symptom management; Reading the situation. The nurse judges when to introduce conversations around anticipatory medications, balancing the need for discussion with the dying person and their family's likely response; Playing the game. The nurse owns the decision to initiate anticipatory medication prescribing and carefully negotiates with the General Practitioner. Nurses view pain control through prescribed medication as key to symptom management for dying people. Consequently, they own the role of ascertaining when to initiate discussions with families about anticipatory medicines. Nurses believe they advocate for dying person and their families' needs and lead negotiations with General Practitioners for medications to go into the home. This nurse led care alters the traditional boundaries of the General Practitioners-nurse professional relationship.

Journal of Advanced Nursing October 2017

Effective prescribing in a walk-in centre

In the UK, many walk-in centres (WIC)/urgent care services and out-of-hours treatment services are nurse-led with minimal general practitioner support. This has provided nurses with an opportunity to become more autonomous, up-skilled and increasingly specialised. When faced with a patient who is severely ill and requires emergency admission, or when trying to elicit a medical history from a patient who is taking a cocktail of medicines and does not have a current list, limited, or no, access to patient notes can make the role of nurse prescriber in this setting difficult. This article describes some of the prescribing challenges faced in a WIC environment. Nurse Prescribing; Aug 2017

Respiratory Care

Bronchiectasis—a growing respiratory problem Bronchiectasis is the irreversible, pathological dilatation of the small and medium-sized bronchi. It is not a disease in its own right, but a final common pathway of a cycle of inflammation, bacterial colonisation and infection occurring in a variety of pathologic processes that are associated with recurrent or acute infection and inflammation, such as cystic fibrosis, chronic obstructive pulmonary disease and asthma leading to permanent structural changes in the airways. Recent data has shown that bronchiectasis is steadily increasing in prevalence worldwide, with most recent data from the UK indicating rates of 486 per 100 000 in men and 566 per year in women (Quint et al, 2016). Nurse Prescriber October 2017
Rheumatic Diseases Impact of non-adherence on the safety and efficacy of uric acid lowering therapies in the treatment of gout  
Sub-optimal medication adherence may compromise safety and efficacy of mono and dual-ULTs, especially in patients with gout resulting from an overproduction of uric acid. Clinicians and pharmacists should consider counselling patients with respect to the risks associated with partial adherence, and offer interventions to improve adherence or tailor treatments, where appropriate. [British Journal of Clinical Pharmacology Sept 17]

Tofacitinib: a janus kinase inhibitor for rheumatoid arthritis  
Tofacitinib (Xeljanz) is an oral janus kinase (JAK) inhibitor indicated for the second-line treatment of moderate to severe active rheumatoid arthritis in adults. This article discusses its properties, efficacy and adverse effects Prescriber August 2017

Management of rheumatoid arthritis in primary care  
Practice nurses can encourage patients to seek early advice for any RA symptoms they are experiencing. Once treatment has commenced, monitoring potentially toxic drugs is a vital part of care for patients taking one or more of these medications. Practice nurses have a vital role in the care of patients receiving treatment, in providing advice and education, as well as monitoring and encouraging them to attend. They may also be involved in audits to assess systems in place and to see if any amendments are needed. Nurse Prescribing October 2017

Diagnosis and management of spondyloarthritis in the over-16s  
When NICE acknowledges that the purpose of its guideline is not only to provide advice but also to raise awareness, it is evident that understanding about the disorder in question is less than it might be. Which explains why its new guideline on the diagnosis and management of spondyloarthritis includes so much detail about recognition, referral and differential diagnosis. Prescriber August 2017

Sexual Health Undertaking an oral contraceptive pill review.  
This article provides nurses with an understanding of the process for undertaking an annual oral contraceptive pill review effectively. Undertaking a pill check requires an understanding of the different types of oral contraceptive pills and associated risk factors. This article refers to recommendations from the Faculty of Sexual and Reproductive Healthcare, It enables nurses to consider a variety of factors during a pill check, assisting women to make informed decisions about contraception in partnership with the healthcare practitioner. It advocates using a systematic approach to the pill check and emphasises the importance of collaborating with other healthcare colleagues, such as GPs or independent prescribers. Nursing Standard; Sep 2017

Efficacy and side-effects of oral contraceptives  
For the majority of women, oral contraception is safe, convenient and effective, but users should be counselled about potential adverse effects and the importance of good adherence. This review discusses the efficacy, advantages and disadvantages of both combined and progestogen-only oral contraceptives. Prescriber August 2017
**Smoking**  
What nurses can do to help people quit smoking  
The cost of smoking on the NHS is incredible and despite a promising downward trend in smoking rates, there is still much to do. Viv Bennett, chief nurse, Public Health England outlines what you can do as nurses to help people quit. *Nurse Prescriber October 2017*

**Women’s Health/gynaecology**  
Hormone replacement therapy: Examining the evidence  
New research has revealed that hormone replacement therapy (HRT) is not linked with premature death (Manson et al, 2017). This may be good news for women experiencing the symptoms of menopause. However, the picture is anything but clear-cut. *Nurse Prescribing October 2017*

**Wound Care**  
Chronic leg ulcers  
The most commonly encountered chronic wounds in clinical practice in the UK are venous leg ulcers (NHS Choices, 2016). Leg ulcers can be defined as loss of skin below the knee on the leg or foot, which takes more than 2 weeks to heal (National Institute for Health and Care Excellence (NICE), 2016). Leg ulcers affect 1 in 500 people in the UK and cost the NHS an estimated £400 million per year; this cost has serious consequences for an already limited NHS budget (NHS England, 2014). Therefore, promotion of self-care, an optimum healing environment and prevention of re-occurrence is a significant issue for clinicians (Wounds UK, 2016). *ANSWERS Nurse prescribing September 2017*

**Wound healing outcomes in a diabetic foot ulcer outpatient clinic at an acute care hospital: a retrospective study**  
Patients with diabetic foot ulcers (DFU) have an increased risk of lower extremity amputation. A retrospective chart review of patients with DFUs attending the Foot Treatment and Assessment chiropodist-led outpatient clinic at an inner-city academic hospital was conducted to determine wound healing outcomes and characteristics contributing to outcomes. This study demonstrates the benefit in having a chiropodist within the outpatient clinic at an acute care hospital. *Journal of wound care October 2017*

**Professional Concerns**  
Looking at medication adherence: An evidence review  
People who are prescribed self-administered medication typically take around half of their prescribed doses and may stop treatment early. Poor adherence to prescribed medication may not only cause health problems, but can also mean resources are wasted—from unused medicines, to avoidable hospitalisations and prescriptions. Medication-related adverse events have been estimated to be responsible for 5700 deaths and cost the UK £750 million annually. The problem is particularly significant among older people. Non-adherence may be intentional or unintentional, with the complexity of treatment regimes, the quality of the information about the regime, communication between provider and patient, the person’s ability to remember to take medicines appropriately, concerns about adverse effects and their preferences and beliefs about the treatment, all potentially at play (Ryan et al, 2014). *British journal of community nursing September 2017*
Prescribe: an e-learning initiative to improve prescribing. Ensuring that patients receive the right medicines at the appropriate dosages is a complex skill, with potentially serious consequences if mistakes are made. Prescribe is a recently launched online education programme designed to increase prescribing competency among medical students, new doctors and other prescribing professionals. Prescriber September 2017

Computerized order entry, clinical decision support, and safer prescribing. Unintended harms from medicines caused by adverse drug reactions and medication errors are common. The medication process is very complex, and error can occur in the development, manufacture, distribution, prescribing, dispensing, administration, and monitoring of medicines. The prescriber, to avoid error, must first make careful decisions tailored to account for numerous factors that differ from patient to patient, then communicate orders that others must execute meticulously and whose consequences must be adequately monitored. Adverse Drug Reaction Bulletin Aug 17

Bringing personalised medicine to mainstream practice. Personalised medicine has the potential to optimise drug efficacy and patient outcomes as well as save the NHS billions, Professor Sir Munir Pirmohamed talks to Kate Stewart about his groundbreaking work in this field. Prescriber September 2017

Impact of internally developed electronic prescription on prescribing errors at discharge from the Emergency Department. Studies assessing the effect of an internally developed electronic (E)-prescription system at discharge from an emergency department (ED) are few. Additionally, commercially available electronic solutions are costly in many resource-limited settings. This study assessed the impact of introducing an internally developed, low-cost E-prescription system, with a list of commonly prescribed medications, on prescription error rates at discharge from the ED, compared to handwritten prescriptions.

Overall, E-prescriptions included fewer prescription errors as compared to handwritten prescriptions. E-prescriptions, however, were associated with a significant increase in duplication errors, specifically with home medication (1.7% to 3%, p=0.02). In conclusion: a basic, internally developed E-prescription system, focused on commonly used medications, effectively reduced medication errors in a low-resource setting where the costs of commercial electronic systems are too high. Western Journal of Emergency Medicine Sep 2017

A qualitative study exploring the clinical reasoning processes of pharmacist and nurse independent prescribers in the United Kingdom. Clinical reasoning is a central component of prescribers competence when reaching a clinically appropriate decision. Like doctors, pharmacist and nurse independent prescribers in the United Kingdom have extensive prescribing rights, but little is known about their clinical reasoning. This study explores the process and influences of clinical reasoning by secondary care pharmacist and nurse independent prescribers in the United Kingdom. The resultant prescribing model shows clinical reasoning as a complex and dynamic process. Findings from this study could inform the training of independent prescribers to improve their professional development, clinical reasoning skills and subsequently improve patient care. Canadian Pharmacist Conference, Quebec City, Canada, 2/06/17
Nurse prescribing. Knowledge and attitudes of polish nurses in the eve of extending their professional competences: Cross-sectional study. The aim of this paper was to analyse the knowledge and attitudes of Polish nurse specialists to their new professional rights in the independent ordaining of some drugs and drug prescribing. The study found that knowledge of nurses on the extension of their professional role was unsatisfactory and required urgent complementation. It advises health policy makers to consider an extensive information campaign, especially with nurses in advanced practice who have prescribing competencies. Nurses' attitudes to nurse prescribing were generally positive. The concerns expressed matched those of nurses from countries where professional roles underwent extension earlier. Acta Poloniae Pharmaceutica - Drug Research; 2017

Off-label prescribing by nurse prescribers: Best practice? Off-label prescribing is the use of a medicinal product outside the conditions set out in the summary of product characteristics and should only be undertaken if there is no licensed alternative available to achieve the best outcome. New evidence that emerges after a licence has been prescribed does not necessarily mean there will be an application for the licence to be extended. Randomised controlled trials based on a homogenised population may not represent the complexities of an individual patient.

Therefore, prescribers need to consider a definition of evidence-based prescribing that extends beyond best research evidence to incorporate clinical expertise and individual needs and perspectives of patients. Nurse prescribers should ensure that their competence and expertise to prescribe off-label is addressed to deliver true evidence-based prescribing. Nurse Prescriber September 2017

Unlicensed and off-label uses of medicines: definitions and clarification of terminology. The terms ‘unlicensed’ and ‘off-label’ in relation to the marketing and prescribing of medicinal products are widely used but can confuse and be misunderstood. This article discusses the definitions and attempts to offer clarity, dealing only with UK legislations British Journal of Clinical Pharmacology

Commissioning framework for biological medicines (including biosimilar medicines). The document supports commissioners to make the most of the opportunity presented by increased competition amongst biological medicines, including biosimilars. In particular, it sets out the importance of a collaborative approach to the commissioning of biosimilar medicines [NHS England September 2017]

Deprescribing: tackling increasing polypharmacy. “Deprescribing – is less more?” was the theme of this year’s annual scientific meeting organised by the Prescribing and Research in Medicines Management (PRIMM) group, held in London in January. The meeting covered a range of topics relating to deprescribing, including a seven-step deprescribing model, identifying patients with polypharmacy problems, and providing individualised prescribing. Prescriber July 2017
**Physiotherapy**  Barriers to and facilitators of independent non-medical prescribing in clinical practice: a mixed-methods systematic review

The review included qualitative and quantitative studies investigating independent prescribing by any non-medical professional group. Overall barriers to and facilitators of the implementation and utilisation of iNMP were evident, demonstrating multifactorial and context-specific variables within four explicit themes. These being: **systems** (government and political, organisational, formulary); **education and support** (non-medical prescribing (NMP) courses/continuous professional development (CPD)); **personal and professional** (medical profession, NMP professions, service users); and **financial factors**. *Journal of physiotherapy; Oct 2017*

**Effects of a brief action and coping planning intervention on completion of preventive exercises prescribed by a physiotherapist among people with knee pain**

The present study aimed to test the efficacy of action and coping planning in promoting engagement with preventive exercises among a sample of people with knee pain. Individuals who presented to a physiotherapist with knee pain completed two assessments separated by 14 days. At baseline, participants completed measures of severity of problems associated with the knee (e.g., pain, symptoms) and past behaviour. Subsequently, participants were randomly assigned to an action and coping planning or control group. Two weeks later, participants retrospectively reported their preventive exercise behaviour over the past 14 days. Analyses revealed that the experimental group reported a higher number of preventive exercise sessions over the 14 day period when compared with the control group. The results underscore the importance of action and coping planning for the enactment of preventive exercises that are designed to manage or prevent knee pain. *Journal of science and medicine in sport August 2017*

**Prescribed exercise programs may not be effective in reducing impairments and improving activity during upper limb fracture rehabilitation: a systematic review**

There is emerging evidence that current prescribed exercise regimens may not be effective in reducing impairments and improving activity following an upper limb fracture. Starting exercise early combined with a shorter immobilisation period is more effective than starting exercise after a longer immobilisation period. *Journal of physiotherapy; Sep 2017*

**Patients with chronic pain may need extra support when prescribed physical activity in primary care: a qualitative study**

The concept of physical activity on prescription is an option for various diseases, but there is a lack of knowledge about how patients with chronic musculoskeletal pain experience receiving the prescription. This study suggests that patients with CMP have a greater need for information and extra support to overcome existing barriers, before or when physical activity is prescribed. *Patients with CMP required the prescriber to listen and take the patients’ circumstances, context, symptoms and current activity level into account to a greater extent*. These patients experienced more obstacles to increase their physical activity and, therefore, had a greater need for tailored information and support. Patients found it difficult to distinguish between physical activity on prescription and physiotherapy and perceived that also the physicians could not tell the difference. *Scandinavian journal of primary health care; Mar 2017*
Pharmacy and Pharmacist role

ASHP national survey of pharmacy practice in hospital settings: Prescribing and transcribing-2016
These are the results of the 2016 ASHP [American Journal of Health-System Pharmacy] national survey of pharmacy practice in hospital settings. Drug policy development by pharmacy and therapeutics committees continues to be an important strategy for improving prescribing. Strict formulary systems are maintained in 63.0% of hospitals, and 89.7% of hospitals use clinical practice guidelines that include medications. Transitions-of-care programs are increasing in number, with 34.6% of hospitals now offering discharge prescription services. Pharmacists continue to expand their role in improving the prescribing of medications in both hospital and outpatient settings. The adoption of EHRs and medication-use technologies has contributed to this growth. [American Journal of Health-System Pharmacy Sep 2017]

Postgraduate pharmacy independent prescribing course: Overview across the UK
There are now 42 accredited centres training pharmacists to become independent prescribers. How do these courses compare? This descriptive study described and compared UK universities' delivery of independent prescribing courses for pharmacists. There were 2 similarities—entry requirements and methods of assessment—as required by GPhC accreditation. Six differences were highlighted, concerning credits, duration, number and type of students, fees and the delivery of learning and assessment methods. European Journal of Hospital Pharmacy; Mar 2017

Side effects and adverse drug reactions
This article looks at the pharmacological aspects surrounding side effects of drugs, adverse drug reactions and the key differences between the two. It will also touch on the concept of drug 'allergy' and its meaning from a pharmacological perspective. Using examples, common and rare side effects will be illustrated and how side effects are classified discussed. The main types of adverse drug reactions will be examined and examples of each given, highlighting when a side effect becomes an adverse effect. Nurse Prescribing Oct 2017

Public Health

‘When you are homeless, you are not thinking about your medication, but your food, shelter or heat for the night’: behavioural determinants of homeless patients' adherence to prescribed medicines
This study aimed to explore homeless patients' adherence to prescribed medicines using Theoretical Domains Framework (TDF). A qualitative study using semi-structured, face-to-face interviews was undertaken. Participants were recruited from a homelessness primary healthcare centre in Aberdeen. Twenty-five patients were interviewed. A total of 13 out of 14 TDF domains were identified that explained the determinants of adherence or non-adherence to prescribed medicines. These included: 'beliefs about consequences' 'goals' of therapy' and 'environmental context and resources.' Obtaining food and shelter was higher priority than access and adherence to prescribed medicines while being homeless and behavioural determinants of non-adherence identified in this study were mostly related to homelessness and associated lifestyle. [Public Health July 2017]

The last-minute traveller: Planning vaccinations for a family
This article explores the risk assessment for both short- and long-term travellers. Risk assessments for this subject group are complex. An adequate assessment requires the travel health clinician to review many facets related to travel. These include the nature and duration of travel, the number of destinations and the time spent in each destination. It is also vital that past and present medical conditions, immunisation history and relevant country-specific infectious disease risks are explored in detail. Nurse Prescribing August 2017
Achieving prescribing competencies

The NMC are currently reviewing the ‘Standards of Proficiency for Nurse and Midwife Prescribers’ and are looking to move to using the Royal Pharmaceutical Society's ‘Single Competency Framework’. There is limited literature and guidance available to support the use of the competencies for prescribing. Relevant sources of information that were found useful for assisting prescribing practice have been identified. Reflections on how each competency has been achieved and how this has been evidenced are discussed. This includes reflective practice, supervised practice and case studies, which are identified as essential for achieving competence in prescribing. Nurse Prescriber September 2017

Brexit means Brexit, but what of pharmacovigilance?

[CONFERENCE REPORT] While uncertainty remains over exactly how the UK’s exit from the European Union will pan out, there is little doubt that there will be disruption, at least in the short term, for the pharmaceutical industry. Issues surrounding the potential implications of Brexit for the medicines regulatory system, and for pharmacovigilance in particular, were discussed at a recent meeting in London, organised by the Drug Safety Research Unit Prescriber August 2017

Perceptions of the Drug Safety Update newsletter

The Drug Safety Update newsletter, published monthly by the MHRA, plays an important role in alerting health professionals to new safety information on medicines. Mike Wilcock and Georgina Praed present the findings of their small survey of GPs, nurse prescribers and community pharmacists to gauge their awareness and views of the Drug Safety Update newsletter. Prescriber July 2017

Will the UK face an opioid abuse epidemic?

Prescription drug abuse, in particular opioid abuse, has reached epidemic proportions in the USA. While the situation in the UK is currently less clear cut, increasing awareness among health professionals and greater investment in services may help to avoid a similar public health crisis in the future Prescriber August 2017

How will NICE’s budget impact test affect new drug availability?

NICE’s budget impact test – in which new drugs that will have a net impact of £20 million or more in any one of their first three years of use will trigger commercial negotiations between NHS England and the drug company – was introduced in April, amid much controversy. Many argue the threshold is too low and will have an unacceptable impact on the availability of new medicines. Prescriber August 2017

Prescribing Safety: An Evaluation of an Inter-Professional Workshop Involving Non-Medical Prescribing and MPharm Students

This publication provides an evaluation of a workshop run by the University of Huddersfield including student feedback on the workshop itself University of Huddersfield Teaching and Learning Conference 13 September 2017
Growth of nurse prescribing competence: facilitators and barriers during education

The aim of this study was to describe facilitators and barriers in relation to the growth of nurse prescribing competence from the perspective of the nurses studying in a prescribing programme. The barriers to the growth of nurses' prescribing competence were *unclear job description, incomplete care plans and concerns about how consultation with doctors will be organised and realised*. The results show that, for the purpose of developing the new role and position of nurse prescribers, educators and nursing managers must invest more in staff awareness of nurse prescribing education and also offer more support to nurse prescribers in their workplaces. The results of this study can be used especially in countries where nurse prescribing education is only in the process of being planned or has just been started. Heads of nursing and educators in prescribing education will benefit from the results when creating expanded job descriptions for nurses and supporting networking between students during the period of training. *Journal of Clinical Nursing October 2017*

**Future perspectives on nonmedical prescribing**  This paper provides a future perspective on NMP in light of findings of an umbrella review of aspects of NMP. The review identified seven systematic reviews of influence on *prescribing decision-making, processes of prescribing, and barriers and facilitators to implementation*. Decision making was reported as complex with many, and often conflicting, influences.

**Facilitators of NMP included perceived improved patient care and professional autonomy, while barriers included lack of defined roles and resource pressures.** Three systematic reviews explored patient outcomes that were noted to be equivalent or better to physician prescribing. In particular, a Cochrane review of 46 studies of clinical, patient-reported, and resource-use outcomes of NMP compared with medical prescribing showed positive intervention-group effects. Despite positive findings, authors highlighted high bias, poor definition and description of ‘prescribing’ and the ‘prescribing process’ and difficulty in separating NMP effects from the contributions of other healthcare team members. While evidence of benefit and safety is essential to inform practice, for NMP to be implemented and sustained on a large scale, there needs to be clear commitment at the highest level. *The approach being taken by the Scottish Government to pharmacist prescribing implementation may inform developments in other professions and countries.* The vision is that by 2023, all pharmacists providing pharmaceutical care will be pharmacist-independent prescribers. There are, however, challenges to implementing NMP into working practice; two key challenges are the need for sustainable models of care and evaluation research. These challenges could be met by considering the theoretical basis for implementation, and robust and rigorous evaluation. *Therapeutic advances in drug safety; Jun 2017*

**Overview of the uptake and implementation of non-medical prescribing in Wales: a national survey**  This survey sought to identify the non-medical healthcare professionals in Wales qualified to prescribe medicines (including job title, employer, where the prescribing qualification is used, care setting and service provided); the mode of prescribing used by these healthcare professionals, the frequency with which medicines are prescribed and the different ways in which the prescribing qualification is used; and the safety and clinical governance systems within which these healthcare professionals practise. *BMJ Open August 2017*
The development and initial psychometric evaluation of a measure assessing adherence to prescribed exercise: the Exercise Adherence Rating Scale (EARS). There is no gold standard for measuring adherence to prescribed home exercise. Self-report diaries are commonly used however lack of standardisation, inaccurate recall and self-presentation bias limit their validity. This article reports the development and psychometric evaluation of the Exercise Adherence Rating Scale (EARS). The EARS enables the measurement of adherence to prescribed home exercise. This may facilitate the evaluation of interventions promoting self-management for both the prevention and treatment of chronic conditions. Physiotherapy; Jun 2017

Independent prescriber physiotherapist led balance clinic: the Southport and Ormskirk pathway. This article discusses the introduction and impact of non-medical prescribing, initiated to improve patient pathways for those presenting with dizziness and balance disorders. Diagnoses, treatments and patient satisfaction were studied, with an analysis of the impact of medication management on patients and service. The most common diagnoses were benign paroxysmal positional vertigo and vestibular migraine. 84% of patients required self-management strategies, 50% exercise therapy, 48% medication management and 24% a particle repositioning manoeuvre. Patient satisfaction was 99% and in conclusion, having an independent prescriber physiotherapist leading the balance clinic reduced the number of hospital visits and onward referrals. Nearly half of all patients required medication management as part of their dizziness or balance treatment. Journal of Laryngology & Otology; May 2017

Physiotherapists' perceptions of patient adherence to prescribed self-management strategies: a cross-sectional survey of Australian physiotherapists. The aims of this study were to explore physiotherapists' views on the importance and perceived rates of patient adherence to physiotherapist prescribed self-management strategies; the perceived importance of methods physiotherapists can employ to aid patient adherence and the barriers to employing these methods. In total, 352 physiotherapists completed the survey (response rate 44%). 89% believed that patient self-management strategies were important in improving outcomes; however, the mean perceived rate of patient adherence across all strategies was only 67%. Physiotherapists reported that there were a number of methods that can be employed to aid patient adherence such as providing patient education and allowing time for patient practice; with minimal perceived barriers to employing these methods. Physiotherapists should be encouraged to implement into their routine clinical practice evidence-based methods to aid adherence. The perception is that there are modifiable characteristics which determine adherence including patient self-efficacy, physiotherapist communication skills and the complexity of the self-management strategy. Methods that physiotherapists can employ to positively influence patient adherence may include individualizing the strategy to the patient, education and supplementary written information. Disability and rehabilitation; Sep 2017
National Guidance [NICE]

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Clinical Knowledge Summaries These have prescribing information within them relating to specific conditions/diseases and the drugs administered/considered for treatment. The latest major updates can be found here.

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