interventions including education and training, interprofessional communication and support, and digital technologies (incorporating clinical decision support).

Comprehensive therapeutic care involves the assessment of the utilization, quality, clinical appropriateness and ongoing cost of prescribed medications. An important skill of the modern prescriber is knowing when not to prescribe or indeed withdrawing inappropriate medication under supervision, with the goal of managing inappropriate polypharmacy and improving outcomes: the process of 'Deprescribing'.²

Modern practice requires prescribers to be able to provide holistic therapeutic care in a patient-centred approach. This can be challenging when patients are receiving care from a variety of specialists. The prescribing itself may be devolved to other colleagues (junior doctors or family practitioners) from the original decision maker. Communication and collaboration between healthcare practitioners and patients is essential if important pharmaceutical care guidance is followed according to best practice.

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3 WHAT TO DO ABOUT DIFFICULT HYPERTENSION?

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Hypertension is one of the most important risk factors for cardiovascular disease, which is a significant cause of morbidity and mortality worldwide. Resistant (or difficult) hypertension is thought to affect 1 in 6 patients with treated hypertension and carries an increased risk of death and cardiovascular disease. It is generally defined as uncontrolled clinic blood pressure (>140/90 mmHg) after treatment with three or more antihypertensives to include optimal doses of an ACE inhibitor (or an angiotensin receptor blocker), a calcium channel blocker and a diuretic. There are some factors that must be taken into account before a diagnosis of resistant hypertension can be made. 'Pseudo-resistant' hypertension can be caused by poor clinic blood pressure measurement technique, patient non-adherence to prescribed medication, patient intolerance to certain anti-hypertensive medications and white coat hypertension (where blood pressure appears high in the clinic but is controlled out-of-the-office on home or ambulatory measurements).

Pharmacological treatment of resistant hypertension is focused on the addition of fourth-line therapy and recent evidence supports the use of spironolactone. Lifestyle should be reviewed and patients encouraged to exercise regularly and lose weight, reduce their alcohol and sodium consumption and stop smoking. In patients who remain uncontrolled on optimal treatment, there are a number of alternative treatment options and surgical procedures which can be considered. However, the evidence supporting each of these is limited and in some cases, conflicting and therefore more prospective randomised controlled trials are required before any can be adopted into routine clinical practice.

4 DIAGNOSIS AND MANAGEMENT OF NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD)

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Non-alcoholic fatty liver disease (NAFLD) is a metabolic liver disease that includes a spectrum of liver disease extending from simple steatosis or non-alcoholic fatty liver (NAFL) to steatohepatitis (NASH), liver fibrosis and cirrhosis. NAFLD is also a risk factor for developing type 2 diabetes (T2DM) and cardiovascular disease. Patients with NASH may or may not have liver fibrosis, but the presence of advanced liver fibrosis not only increases the risk of cirrhosis and end stage liver disease but also markedly increases the risk of hepatocellular carcinoma.

The 'gold standard' diagnostic test for NAFLD is the liver biopsy but there are now a variety of non-invasive tests that can be used to diagnose and monitor the various stages of NAFLD and whilst none of these tests are perfect, each have their strengths and limitations that influences how they should be used in clinical practice.

The early stages of NAFLD, i.e. liver fat and inflammation (steatohepatitis) respond to lifestyle changes such as weight loss and increases in physical activity that are also important components of T2DM management; and the available evidence supports the importance of lifestyle change in people with NAFLD. However, such change is notoriously difficult to achieve, so safe and effective treatments are also required to prevent and treat NAFLD. The presentation will discuss the diagnosis and management of NAFLD, including key points of management from the recent UK NICE NAFLD Guidelines (ng49), Joint Societies European Guidelines and US Guidelines.

5 THERAPY FOR ASTHMA AND COPD

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10.1136/postgradmedj-2018-fpm.5

A hundred years ago the main treatments for obstructive lung disease were adrenal gland extracts, herbally-derived sympathomimetic ephedrine and anticholinergics, such as atropine. There have been extraordinary advances in the pharmacological therapy of asthma and COPD, yet the major classes of therapy we use today are based on these original therapies – long-acting β_2 -agonists (LABA) derived from adrenaline and muscarinic receptor antagonists (LAMA) and inhaled corticosteroids (ICS) developed from the adrenal cortex hormone cortisol. Triple fixed-dose inhalers containing all 3 drugs have now been developed and are convenient for some patients. In asthma, by far the greatest advance has been the introduction of ICS for control of the underlying eosinophilic inflammation of the airways. Although ICS are effective in most patients, there is often very poor adherence as symptoms are intermittent. In a new strategy, instead of a short-acting β_2 -agonist, such as salbutamol, patients use a reliever inhaler containing a rapidly-acting LABA formoterol combined with an ICS. This provides much better control of asthma and is a simple strategy for most patients. At the other end of the spectrum, patients with eosinophilic severe asthma not controlled on conventional therapies may now be controlled with biologics,

which include antibodies against immunoglobulin-E, interleukin-5 and interleukin-4 receptor. In COPD the mainstay of treatment is LABA and LAMA, often as a combination inhaler, whereas ICS are only effective in a proportion of patients that also have eosinophilic inflammation. New safe anti-inflammatory treatments are needed to prevent the progression and exacerbations of COPD.

6 POETRY, MEDICINE AND THE HIPPOCRATES PRIZE

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10.1136/postgradmedj-2018-fpm.6

Why should health professionals be interested in poetry? Patients and their families and carers are accustomed to the use of music and painting in therapy and recent years have seen remarkable growth in the use of poetry for therapeutic purposes. Poetry now features in the curriculum for training health professionals, including doctors, nurses and midwives, in many academic centres in Europe, North America and other continents.

The concept is not new. Poetry was used to treat abnormal mood by the Greek doctor Soranus two thousand years ago.¹ Renewed interest in poetry as therapy during the 20th-century has inspired a growing body of poetry written about serious medical disorders, including psychiatric problems, HIV/AIDS and cancers.¹

For almost a decade the Hippocrates Initiative has been exploring the relations between the disciplines of poetry and medicine, both through scholarly inquiry at its annual international symposium and creatively through the Hippocrates Prize for Poetry and Medicine, which over the years has attracted entries from some seventy countries worldwide. During this session on poetry and medicine, we shall hear readings from the Hippocrates Prize by previous winners Jane Draycott and Wendy French.

We take great pleasure in acknowledging the generous support of the UK's Fellowship of Postgraduate Medicine (for the health professional and open categories of the Hippocrates Prize) and of UK healthy heart charity the Cardiovascular Research Trust (for the young poets' award). Judges have included eminent poets such as Jorie Graham, Gwyneth Lewis, Philip Gross, Jo Shapcott and the late Dannie Abse, leading figures from the medical profession such as Professor Sir Bruce Keogh, Professor Steve Field, Dr. Owen Lewis and Professor Femi Oyebode, and prominent people from public life, among them James Naughtie, Robert Francis QC, Martha Kearney, Neal Baer and Mark Lawson.

There were entries from thirty-seven countries on five continents for this year's prizes in the open category, the health professional category, and the young poets category. These awards were announced on 11 May at the Poetry Foundation in Chicago following the Hippocrates international symposium on poetry and medicine, hosted this year by the Center for Bioethics and Medical Humanities at Northwestern University's Feinberg School of Medicine.

The 10th annual Hippocrates prizes will be awarded on 17th May 2019 at the Centre for Life in Newcastle, with American-Mexican poet and PEN international President Jennifer Clement judging the international Open and Health Professional awards (closing date 14th February 2019) and New

Zealand poet Elizabeth Smither judging the young poet awards (closing date 1 st March 2019). To find out more about the Hippocrates Prize, Hippocrates Press publications, and the Hippocrates Society, please visit www.hippocrates-poetry.org.

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7 NEW APPROACHES FOR OLD DISEASES: WHAT TO DO ABOUT MALARIA?

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Disease and deaths caused by malaria have fallen significantly in the past few years. These successes rely on many interventions such as better diagnosis, the use of insecticide impregnated bed nets and artemisinin combination therapies. There is also hope that vaccines can be improved to assist in elimination programmes that have been so successful in many countries.

Gains against malaria remain fragile because effective interventions can fail quickly. Mosquitoes can be selected for resistance to insecticides, and parasites escape from artemisinin combination treatments. Vulnerable populations such as pregnant women still only have a limited repertoire of preventative strategies available. Whilst malaria caused by conventional species is as old as the hills, zoonotic parasites that infect humans in particular geographic areas are emergent infections.

Some of these risks of increasing malaria burdens can be mitigated by recent advances. The need for more sensitive diagnostic tests in the era of elimination is being addressed, together with newer methods to monitor molecular markers for drug resistance. New drug classes are being discovered, and there are many vaccine candidates in different stages of clinical development. Together with these innovations and increasing resources to manage malaria, there is also greater scope for applying existing antimalarials more effectively.

8 AGEING AND MULTI-MORBIDITY

Thomas BL Kirkwood. Newcastle University Institute for Ageing, UK

10.1136/postgradmedj-2018-fpm.8

A growing fraction of the population is living to advanced old age, bringing increased prevalence of a wide range of age-related chronic diseases. Age is much the largest risk factor for a whole spectrum of different diseases, dwarfing the contributions from genetic, lifestyle and environmental risk factors. Furthermore, the fact that so many conditions share ageing as their dominant risk factor means that very old people commonly exhibit extensive multi-morbidity. In terms of underlying mechanisms, we now know that ageing itself is not programmed. On the contrary, our bodies are programmed for survival, but evolutionary considerations mean that there was never reason to invest in the potential for indefinite survival. Consequently, we now understand that ageing is driven by the lifelong accumulation of damage in our cells and organs, and the same is true of age-related, chronic diseases. Thus, there is a huge overlap. Recognition of this common