The Golden Mortar

Newsletter of the Southern Gauteng Branch of the Pharmaceutical Society of South Africa and associated Sectors.

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Diabetes Mellitus

Amayeza Info Centre

World Diabetes Day is scheduled for 14th November, 2015. The accompanying article provides background information on Diabetes. In addition the TAG illustrated at the bottom of the article may be reproduced and printed on material supplied to patients / clients. The TAG contains information on Diabetes which the patient / client should find informative and helpful. The information may be accessed by scanning the TAG using a smart phone or tablet or similar device. For your convenience the information contained in the TAG is reproduced on pages 4 & 5.

According to the International Diabetes Federation, the estimated diabetes prevalence for South Africa is 6.46% for adults aged 20-79 years (approximately 1.9 million of 30 million adults). However, about 50-85% of diabetes sufferers (especially in rural areas), remain undiagnosed.

Diabetes mellitus (diabetes) is a metabolic disorder, characterised by hyperglycaemia resulting from defects in insulin secretion, insulin action or both. Deficient action of insulin on target tissues results in disturbances of carbohydrate, fat and protein metabolism.

Morbidity from diabetes is a result of both macrovascular disease (atherosclerosis) and microvascular disease (retinopathy, nephropathy, and neuropathy). Severe clinical manifestations such as ketoacidosis or non-ketotic hyperosmolar state can result in stupor, coma and, in the absence of treatment, death.

Types of diabetes

Diabetes can be divided into type 1, type 2, other specific types and gestational diabetes.

Type 1 diabetes

Type 1 diabetes accounts for only 5% of cases. It is characterised by pancreatic beta-cell destruction usually leading to absolute insulin deficiency. These patients are prone to ketoacidosis, coma and death. Ketoacidosis is often the first manifestation of the disease (particularly in children and adolescents).

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Type 2 diabetes

Type 2 diabetes accounts for more than 90% of all diabetes cases and includes individuals who have insulin resistance and usually have relative (rather than absolute), insulin deficiency.
Often, characteristic symptoms such as thirst, polyuria, blurred vision and weight loss are not severe or may be absent, in the early stages of type 2 diabetes. Therefore, a significant percentage of cases remain undiagnosed.
Type 2 diabetes is not a particularly well-managed disease, with fewer than 50% of patients meeting glycaemic targets, even in developed countries.

Other specific types of diabetes

Other specific types of diabetes include a wide variety of relatively uncommon conditions, primarily specific genetically defined forms of diabetes or diabetes associated with other diseases or drugs.

- *Genetic defects of the β-cell function*
  - ◊ Characterised by impaired insulin secretion with minimal or no defects in insulin action.
- *Genetic defects in insulin action*
  - ◊ Abnormalities associated with mutations of the insulin receptor previously known as type A insulin resistance.
- *Diseases of the exocrine pancreas*
  - ◊ Any disease that damages the pancreas, or removal of pancreatic tissue, can result in diabetes.
- *Endocrinopathies*
  - ◊ Several hormones (e.g. growth hormone, cortisol, glucagon, and adrenaline) antagonise insulin action and excess amounts of these hormones can cause diabetes.
- *Drug- or chemical-induced diabetes*
  - ◊ Certain medicines can impair insulin secretion, increase hepatic glucose production, or resistance to the action of insulin
- *Infections*
  - ◊ Certain viruses have been associated with β-cell destruction
- *Uncommon forms of immune-mediated diabetes*
  - ◊ Associated with stiff-man syndrome and anti-insulin receptor antibodies
- *Other genetic syndromes sometimes associated with diabetes*
  - ◊ e.g. Down syndrome

Gestational diabetes

Gestational diabetes refers to hyperglycaemia (glucose intolerance) with onset or first recognition during pregnancy. It usually develops in the second or third trimester.

Treatment

The primary purpose in treating hyperglycaemia in patients with diabetes mellitus is to reduce blood glucose sufficiently to prevent or delay the onset or progression of several diabetes-related complications (retinopathy, nephropathy and neuropathy) as well as myocardial infarction (MI), stroke, lower-extremity amputation and end-stage renal disease.

Glycaemic control

The glycated haemoglobin (HbA_{1c}) assay is a well-standardised test for guiding therapy and predicting outcomes. HbA_{1c} is a "weighted" average of blood glucose levels during the preceding 120 days of the erythrocytes' life span.

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HbA_{1c} goals should be individualised, balancing the benefits with regard to prevention and delay of complications with the risk of hypoglycaemia. Diabetic patients should aim to achieve normal or near normal glycaemia, with an HbA_{1c} goal of <7 percent.

Self-monitoring of blood glucose is essential, especially for diabetic patients using insulin.

Routine assessment

Patients with diabetes require initial and ongoing evaluation for diabetes-related complications affecting:

- Eyes
  - ◊ Diabetic patients are at increased risk for visual loss, related to refractive errors (correctable visual impairment), cataracts, glaucoma and retinopathy.
- Feet
  - ◊ Regular examination of the feet is recommended to identify problems with nail care, poorly fitting footwear resulting in barotrauma, fungal infections and callous formation; also to identify risk factors predictive of ulcers and amputation.
- Kidney function
  - ◊ Diabetic nephropathy is a frequent but potentially preventable long-term complication of diabetes.
- Coronary heart disease
  - ◊ Patients with diabetes have an increased risk for atherosclerosis due both to diabetes and to the frequent presence of comorbid conditions such as hypertension, dyslipidaemia and obesity.

Lifestyle interventions

Dietary modification, exercise, weight reduction and to stop smoking can help improve glycaemic control.

Summary

Focused screening of high-risk persons are imperative to improve the rate of early detection, thereby reducing late diagnosis of diabetic patients with established long-term complications. Good control of glycaemia, blood pressure and dyslipidaemia, together with regular examinations for microvascular and macrovascular complications, with appropriate and timely interventions, can prevent the progression of diabetes and its associated complications.

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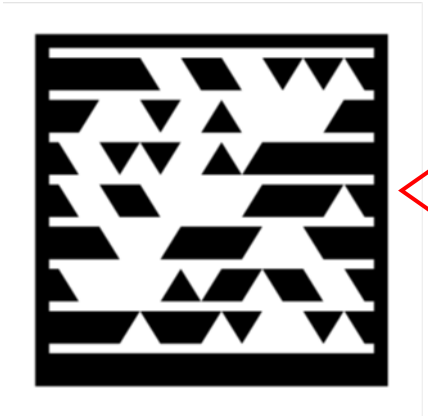

Use this TAG to conveniently supply information on Diabetes to your patients. While Diabetes Health Day falls on 14th November the information available from the TAG will be relevant for future use.

Diabetes

Stephani Schmidt - Amayeza-info

This is the information contained in the TAG on page 3

Diabetes is a condition where there is not enough insulin or if the body does not respond to insulin. This then leads to higher than normal blood glucose (sugar) levels.

Insulin is a hormone produced by the pancreas and keeps blood sugar levels from getting too high (hyperglycaemia) or too low (hypoglycaemia). All the cells in your body need sugar to work normally and insulin helps the sugar get into the cells. Inside the cells, sugar is converted to energy, which can be used immediately or stored till later.

Types of diabetes

Type 1 diabetes mellitus

Is a chronic medical condition that occurs when the pancreas produces very little or no insulin. Patients are treated with insulin. Patients need to monitor what they eat and also monitor their blood sugar level regularly.

Type 2 diabetes mellitus

Occurs when the pancreas produces insufficient amounts of insulin and/or the cells do not respond to normal or even high levels of insulin (also called insulin resistance). Treatment usually includes oral medication which is given in combination with lifestyle changes (such as diet and exercise). However, sometimes insulin needs to be added to ensure a better control of the blood sugar level.

Gestational diabetes

Is a temporary condition and occurs during pregnancy. Women who have gestational diabetes are at risk of developing type 2 diabetes later on in life.

Symptoms

Type 2 diabetes is often not recognised in its early stages. Symptoms associated with type 1 diabetes and in advanced type 2 diabetes include:

- Excessive thirst
- Feeling tired
- Urinating often
- Losing weight
- Blurred vision
- Frequent or recurring infections
- Slow healing wounds, boils and itching skin
- Numbness, pain or tingling in hands and feet

Early diagnosis of diabetes is extremely important and early treatment can prevent or delay complications. Screening for type 2 diabetes may be considered for people over the age of 45 years who are overweight or who have a family history of type 2 diabetes.

Complications

Living with high blood glucose for a long period of time can cause damage to large and small blood vessels and fine nerve endings leading to severe complications (Table 1)

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Table 1: Long-term complications

Organ affected	Complication	Advice to patient to help reduce complications
Heart and blood vessels	Heart attack Stroke	• Quit smoking • Control high blood pressure • Control cholesterol and triglyceride levels • Control blood sugar levels • Exercise regularly
Eye	Blindness	• Eye examinations (every 1-2 years)
Kidney	Kidney failure Dialysis	• Test kidney function (usually done by the doctor)
Nerves	Pain or loss of feeling in the hands and feet Ulceration of the foot Amputation	• Examine all parts of the feet every day – look for broken skin, ulcer, blisters, areas with increased warmth or redness or change in callous formation • Treat any problem urgently • Wear comfortable, supportive shoes • Let a doctor or podiatrist examine your feet regularly

Summary

It is important for diabetic patients to learn about the disease and to know how diet and exercise affect their blood sugar levels. A healthy well-balanced eating plan is important for maintaining blood glucose levels, regulating body weight and to help prevent or delay complications. Complications associated with diabetes do not produce symptoms in the early stage. However, by controlling blood sugar levels, many complications can be prevented or minimised.

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Nomination and Election Process 2015

As members will be aware, for the last few years we have successfully run an electronic (SMS) system of calling for nominations and voting for the nominees to serve on the Southern Gauteng Branch Committee. This has allowed members to participate wherever they may be during the time of the process, - at work, at home or even on holiday or on a business trip.

Members have accepted this efficient and user friendly method and consequently we have received a greater number of nominations and more member participation in the voting process than in the past.

We will conduct the process of nomination and election in the same manner again this year and members are asked to take note of these important dates in the process;

1. Call for nominations for members to serve on Branch Committee - 6 to 13 November 2015.
2. Voting for six of these nominees to serve on Branch Committee - 16 to 23 November 2015.
3. Branch Annual General Meeting – Monday 25 January 2016.

We will make a short CV of each candidate available to members via e-mail to provide more information about those members for whom you may wish to vote.

It is important that members be assured that complete confidentiality is maintained throughout the entire procedure and that only cell phone numbers registered in the PSSA membership database are accepted during the process.

In addition, each registered cell phone number can only be used once for voting purposes and a comprehensive, auditable reporting system is in place to ensure that these controls are strictly adhered to.

One minor but apparently important change in the system this year is the ability for you to respond via “reply” on you cell phone rather than having to dial a number provided to you as in the past.

In order for you to participate in this important process please ensure that you have informed us of any changes that may have occurred in regard to your contact details, particularly your current cellphone number.

This is the one occasion during the year when members have the opportunity to nominate themselves and/or colleagues to serve on the Branch Committee that will be responsible for planning, directing and controlling the affairs of the Branch during the forthcoming year. Consequently you are urged to participate in this process by making yourself available for nomination, making a nomination and voting for the nominees that you believe can make a difference.

An international pharmacy perspective – Pharmintercom 2015

Report by Christine Venter
National President, SA Association of Community Pharmacists

The annual Pharmintercom conference was held from the 23 -27 August 2015 in London in a beautiful setting on the banks of the Thames River at The Royal Horse Guards Hotel.

Associations representing community pharmacists from the following seven countries met for four days to exchange information and discuss challenges and best practices: Australia, United States of America, Canada, New Zealand, Ireland, South Africa and United Kingdom. I was quite surprised to realize that even first world countries battle with the same issues we face in South Africa. Below are some of these issues:

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Ownership structures

All community pharmacies in Australia are owned by pharmacists. 15% of pharmacies are warehouse-style operations (corporate) and the rest are independent pharmacies, of which 70 % belong to a "banner group". In New Zealand the majority of shares must currently belong to a pharmacist. However, during the conference the New Zealand delegates received word that ownership will be opened…even to general practitioners. Ownership in the following countries could be a pharmacist, a non-pharmacist or a corporation: Canada, Ireland, South Africa, United Kingdom and USA.

Data switching between pharmacy and payment funder

I was stunned to find out that only five of the seven countries operate in an environment as we do in South Africa, where a prescription is captured onto a computer, electronically sent to a medical scheme payment administration service, with a real-time report-back. It is hard to believe that in the United Kingdom and Ireland paper claims are still submitted to payment administration services, with a 90 day waiting period for payment. This reminded me of the 1990s when I started my career in pharmacy in South Africa!

Freedom of choice

A concern raised by all of the countries was the restriction on patients in choosing either a facility of choice, or a drug of choice or a service of choice. It is evident that patients all around the world are limited either by their province, government, health insurance or healthcare funder in terms of the services they are allowed to receive.

Pharmacists in GP practices

The majority of the countries represented are facing the threat that a general practitioner can appoint a pharmacist to work in his/her practice. The major concern for all of the countries at Pharmintercom are the issues of perverse incentives and the threat that the patient will not receive the proper medication and care due to these perverse incentives and relationships.

Price of medication

South Africa is the only country of the seven where the price of medication is regulated by Government. Wholesalers in the other countries represented at Pharmintercom have to negotiate with their suppliers for prices, incentives or bonuses. The result of this is that pharmacies shop around at different wholesalers (even across borders) to acquire medication at the lowest price possible. This sounds like the situation in South Africa a few years ago. One other major concern, especially for the UK and Ireland, is the fact that pharmacies and wholesalers can buy medication from another country, which could lead to an increase in counterfeit medication entering their countries.

Regulation of wholesalers

The only regulatory body that regulates wholesalers in all of the other countries is a regulatory body which is similar to the South African Medicine Control Council (MCC). We are the only country where another body - the South African Pharmacy Council regulates wholesalers. I personally believe that this is one of the reasons we have less counterfeit issues in South Africa, as community pharmacists know that the whole supply chain from supplier to community pharmacy can be trusted.

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Shortage of drugs

We constantly read in our own newsletters and the media that South Africa is experiencing a shortage of medication. However, this seems to be a worldwide issue and all of the countries attending Pharmintercom complained about this. Ireland even mentioned that levothyroxine is not available in their country at all.

E-health initiatives

South Africa is currently the only country where the electronic transfer of prescription information between prescribers and pharmacies is subject to legislated controls. All of the countries, with the exception of South Africa, have National Health Insurance systems which make e-health initiatives easier to develop, implement and manage. In most instances these information technology platforms include pharmacists, GPs, nurses and relevant healthcare workers. Such e-health initiatives include personally controlled patient electronic health records, national prescription and dispensing repositories, e-prescribing, patient safety incidents, summary care records (this is where pharmacists have access to up-to-date clinical patient information), QR barcode scanning to identify falsified medicines, health care record incentive payments programs and GuildCare. This is most certainly an area which we as SAACP can focus on.

Patient-initiated services offered by pharmacists.

Patient-initiated services offered by pharmacists, other than the traditional dispensing role, in most countries include blood pressure monitoring, immunisation, lipid monitoring, blood glucose monitoring, weight management, smoking cessation, pregnancy testing, asthma management, osteoporosis screening, diabetes management, bowel cancer screening, sleep apnoea, COPD support, opiate dependence treatment programs, baby progress monitoring and recording, INR recording, emergency contraceptive supply, home visits, medicine usage reviews. All the Associations acknowledged the need to have pharmacy dispensing software which could accommodate / include patient-initiated services to have one integrated record of all patient visits.

Community Pharmacy

Both corporate and independent pharmacies are starting to play an equally important role in all the countries attending Pharmintercom. In all of the countries, except the UK, pharmacy associations have structured themselves in such a manner that the needs of both the corporate pharmacist and the independent pharmacist are accommodated. I truly believe that the Canadian pharmacy association, which has restructured itself in the past year is a structure SAACP needs to investigate while we're busy with our own strategic review process.

Role of the Pharmacy Associations

Associations play vitally important roles in their countries such as facilitating face-to-face CPDs, webinars, lobbying with government on behalf of members, development and implementation of professional services, data mining, consolidation and benchmarking, providing practical support tools, training for the delivery of paid professional services, helping pharmacists to navigate the transformation to a more service-based practice by providing processes, service models educational resources, practice tools and evidence

Things I brought back from Pharmintercom

Whilst we have a new name after the AGM in May 2015 we still function with the same vision and mission as in the past. I have realised after attending this Pharmintercom that the SAACP needs to address the following:

- Review our vision, mission and objectives
- Adopt an organisational structure that will add value to SAAPC and our members (lessons learnt from Canada)

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- The services we want to offer our members must be reviewed (lessons learnt from Australia, Ireland, UK and Canada)
- Remind ourselves that our members are corporate and independent pharmacists and that it's time we address the needs of **all** our pharmacists
- Identify ways and projects in which we can generate funds to offer our members value added services
- Investigate an information technology system to consolidate information to assist us with reliable statistics when we as pharmacists want to negotiate with Government and any other statutory bodies (lessons learnt from Australia)
- Funding of SAACP. All the Associations concerned receive either a levy from pharmacies on whose behalf they negotiate or full membership fees or both. All the Associations also have additional income streams to supplement membership fees.

Last but not least, we have met some amazing friends who have extended a hand of assistance to us. We are in the fortunate position to learn from the best colleagues around the globe without making the same mistakes they have made in the past. I am grateful for a wonderful opportunity such as this and am committed to investigate the best practices I have heard about in London.

APSSA/SAAPI CONFERENCE 2015

Compiled by Miranda Viljoen, FPS

The South African Association of Pharmacists in Industry (SAAPI) had the pleasure of hosting a joint conference with the Academy of Pharmaceutical Sciences of South Africa (APSSA) from 17 - 19 September 2015. Held at Cedar Woods Conference Centre in Woodmead, Sandton. The conference theme was "Today's Solutions for Tomorrow's Needs". It was the first time that SAAPI and APSSA have collaborated to host a joint conference offering delegates plenary and parallel sessions. The conference, which attracted approximately 250 delegates, brought together academic researchers and the local pharmaceutical industry. Postgraduate researchers from seven schools of pharmacy presented the results of their research work to participants, during two parallel sessions.

SAAPI President, Tammy Chetty, opened the conference, followed by an opening address by the Chairperson of the Medicines Control Council (MCC), Prof Helen Rees. In her address Prof Rees outlined the process of transformation from the existing MCC to the new South Africa Health Products Regulatory Authority (SAHPRA), and described some of the projects that are being embarked on to deal with the existing backlog in approvals.

The Plenary Session for the first day commenced with a presentation by Dr Stephen Wicks, from the European Directorate for the Quality of Medicines (EDQM) who gave an informative address on **"**Certification and Inspection Controlling the Quality of Medicines". In his address he outlined the valuable role the Pharmacopoeia Europa plays in the protection of public health by setting one common compulsory legally binding quality standard for all medicinal products in the EU, i.e. raw materials, preparations, dosage forms and containers.

Prof. Stuart Walker – Founder of the Centre for Innovation in Regulatory Science (CIRS) United Kingdom, then presented on "A structured approach to the Benefit Risk Assessment of Medicines: The key to improving decision-making in drug development and the regulatory review". In his presentation Prof Walker outlined the importance of developing a stepwise regulatory framework for the benefit risk assessment of medicines. He explained current thinking and initiatives in Regulatory Science, in both the drug development and regulatory review stages and how improving decision making is the key to success in Research and Development.

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Prof Douglas Oliver opened the SAAPI parallel session with an address on "Active Pharmaceutical Ingredients (APIs) and understanding their life cycle quality and that of the pharmaceutical products in which the APIs are used". Prof Oliver emphasised that the API is at the heart of medicine quality and therapeutic outcome and therefore life cycle management is essential. He outlined the differences between traditional and advanced approaches with special reference to defining the API chemical properties, route of synthesis, impurity profiles and stability.

This was followed by a presentation by Prof Anita Wessels on local Stability testing and requirements.

Dr Desmond Jones, Project Manager of the Regulatory Science Institute concluded the morning session with a presentation on the structure and implementation of the new Regulatory Science Institute and its qualifications.

The two afternoon sessions were presented by Prof Chris Stubbs who spoke on GMP updates and Ms Emma Sadler who gave an animated account on the legal, disciplinary and reputational risks of social media.

The first day was concluded by an outline on conducting clinical trials given by Prof Kosie van Wyk

Day 2

The Plenary Session was given by Dr Stephen Wicks of the EDQM who spoke about the certification process of the EDQM. This was followed by a presentation by Prof Per Arvidsson from the *Karolinska Institutet, Stockholm, Sweden*: The title of his talk was "Academic Drug Discovery Centers - Cultural Bridges Over The Valley of Death?", in which he outlined new drug discovery techniques.

Mr Andy Gray opened the SAAPI morning session by giving an address entitled "Expanding the Range of Authorised Prescribers - A Very Slow Tango". He outlined the pitfalls in legislation regarding allied professions being allowed to prescribe medicines, and he explained that there is often a misunderstanding of the relative roles of different statutory health councils. He described how the HPCSA/(AHPCSA)/SANC need to determine criteria for recognition as a prescriber and then propose a list of medicines that are appropriate. This should be linked to the specific basic or post-basic training required. The MCC should recommend listing in the relevant Schedules, on the basis of an assessment of appropriateness learnt from the need for patient safety.

Prof Henry Leng gave a comprehensive account on the controversial subject of Biosimilars. His take home message in this regard was that biosimilars offered opportunities because of lower costs, and an increase in access to biopharmaceutical medicines. The challenge was to convince the Regulator as well as Funders, Physicians and Patients that the same clinical outcome can be achieved with a biosimilar medicine as with the originator bearing in mind that in biosimilar pharmaceutical products even small differences may have significant effects.

Mr Amit Raga from SABS then gave a presentation in which he outlined applicable standards.

For the final afternoon sessions, SAAPI was pleased to welcome two members from the MRA, Ms E Taute, and Mr T Sehlolo who gave presentations on Getting Ready for the Electronic Technical Document (eCTD) and Tracking the Backlog. Ms Taute in her address on the eCTD gave an in depth account of the problems encountered in the pilot studies on eCTD and gave delegates solutions on how to overcome these. In the final address of the afternoon Mr T Sehlolo gave a presentation on the projects being undertaken to alleviate the backlog at the MCC.

The conference was closed with a vote of thanks to the conference committee for the organisation of another successful event.

The third day of the conference was devoted to APSSA members only.

SAAPI Conference Committee L to R:-
Ms Tammy Chetty, Ms Miranda Viljoen, Ms Carin Archibald, Dr Ralph Tettey-Amlalo, Ms Yolanda Peens, Prof D Oliver.

Prescription Drug Abuse on the Increase

By Gary Kohn, FPS

The abuse of prescription drugs in South Africa appears to be on the increase and should be of serious concern to all pharmacists.

Pharmacists in South Africa are regulated by two Acts, namely the Medicines and Related Substances Act 101 of 1965, as amended and the Pharmacy Act 65 of 1974, as amended.

The Medicines and Related Substances Act addresses the licensing of premises, scheduling and supply of medicines and legislates who may prescribe, supply and dispense medicines and under which conditions.

The Pharmacy Act 65 0f 1974, as amended, addresses the registration of premises after being licenced; the control of medicine purchases; the storage and supply medicines; the responsibilities of the pharmacist and pharmacist's assistant; prescribes the scope of practice of the pharmacist and pharmacist's assistant and provides for disciplinary action should the requirements of the Act not be complied with..

The pharmacist is the custodian of medicine and has to control the scheduled medicine and the supply thereof. In addition the pharmacy and pharmacy personnel must be under his continuous control and supervision, when open.

Although the country has a large illicit drug problem with the abuse of dagga, kyat, cocaine, crystal meth and heroine, prescription medicine has also become a problem.

In retail practice, patients sometimes frequent different doctors and pharmacies to obtain schedule 5 medicines, even attempting to fraudulently obtain these medicines by forging prescriptions or in some cases by removing the dispensary sticker from the back of the prescription to hide the fact that the medication had already been supplied.

Dispensed medicines are often claimed to have been "stolen" as a result of "handbag theft". Often the medicines involved in these cases are tranquilisers, pain tablets, sleeping tablets and the "date-rape" drugs that have addiction abilities.

Compounding the abuse problem is the excessive use of over-the-counter medicines containing codeine and an antihistamine. These products are consumed in excess. While the Codeine Care programme initiated by the Community Pharmacists' Sector was in principle a good initiative, for various reasons it has not proved to be successful.

The demand for steroids for body building is another area in which the pharmacist should apply his/her professional discretion. The use of these medicines require a doctor's diagnosis (and should be controlled by legislation) are handed out indiscriminately by some pharmacists and their assistants, on demand by the patient. On occasion pharmacists are requested to supply these products supported by the excuse from the patient that they have no money to pay the doctor's consultation fee. The abuse of these medicines has grave consequences for the patient which may result in over dosage, death or as a trigger to obtain illicit drugs.

The South African Pharmacy Council in applying the disciplinary aspects of the Pharmacy Act will investigate such a complaints, on receipt of a signed affidavit from the complainant.

Pharmacists and Pharmacists' Assistants, found guilty of such an offenses can be fined substantial amounts or suspended from practice.

THE ORIGIN OF THE COMPRESSED TABLET

By Ray Pogir, FPS

Curator, National Pharmacy Museum

The origin of the technique for producing compressed tablets is largely lost in time. One may ask, how did compressed tablets originate; how long ago; and who was the first to use the technique? As with a numerous advances in the science of pharmacy and medicine, the technology was first developed and patented for an unrelated purpose.

In 1843 the British artist, explorer and inventor, William Brackedon, was dissatisfied with the quality of the graphite and the pencils available to artists at that time. He developed and patented a method of producing fine powdered graphite, and compressing it to make an acceptable pencil for drawing. At that time the mortar and pestle method of making pills was slow and it was difficult to produce pills on a large scale.

John Wyeth & Brother, an American drug manufacturer, saw the possibility of using Brackedon's invention as a solution to the existing old method of making pills. They employed Brackedon to adapt his machine to produce compressed pills. The technique was an instant success and enabled the production of compressed tablets on a large scale. The tablets were safe and easier to standardise.

In 1878 Silas Burroughs, a pharmacist, was sent by John Wyeth & Brother to work for them in London.
He was an enterprising young man and realised that there was a great opportunity to go into business on his own. He contracted to be Wyeth's sole agent for their products and also began to manufacture his own products.

In 1880 his contract was extended to include "Europe, Africa, East Indies and Australia. It was at this time that he invited Henry Wellcome from America to join him in a partnership. The deed of partnership was signed on the 27th of September 1880. Both of them were excellent salesmen and entrepreneurs and the company was highly successful.

In 1883 they started their own factory to produce the compressed pills in England and by 1888 they had commissioned the development of improved tableting machines which were able to produce 600 tablets per minute.
In 1884 they registered "Tabloid" as their trademark. This became one of the most famous trademarks in pharmaceutical history. The name is a combination of "tablet" and "alkaloid" and was used on all their compressed tablets and some of their other products. It was such a success that it became synonymous with anything compressed, e.g. a tabloid is a compressed newspaper.

After the death of Silas Burroughs the control of the company passed to Henry Wellcome. He continued to develop the company into one of the most highly successful pharmaceutical companies in the western world. Later, a number of mergers took place in the pharmaceutical industry and today the company is part of GlaxoSmithKline.
Henry Wellcome was an avid collector of pharmacy and medical artifacts and works of art.

He bequeathed his collection and a large portion of his considerable wealth to The Wellcome Trust which is today regarded as one of the world's largest private funder of medical research. Many outstanding researchers who received grants from the Trust achieved great success.

Two of the researchers, George Hitchings and Gertrude Elion received the Nobel Prize for the development of drugs which made organ transplantations possible and for the first effective treatment of leukemia.

The Trust continues to co-fund the Human Genome Project which has sequenced the more than 3 billion genetic pieces in the human cell.

The Wellcome Collection is in a museum in central London.

Illustrations of a selection of "TABLOID" products held in the National Pharmacy Museum

Cold Chain Management

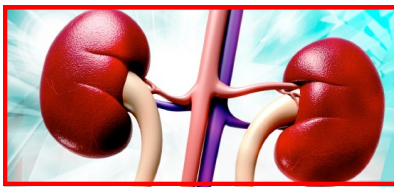
A Sector Workshop is planned for the evening of 27 October in the Auditorium at 52 Glenhove Road. New legislation on Cold Chain requirements has ensured many debates and comment amongst pharmacists in various sectors of pharmacy. Thus the workshop is a "must attend" for pharmacists from the various sectors and in particular Responsible Pharmacists.

Overview:
Thermolabile pharmaceutical products require storage and transportation between
2°C to 8°C in order to ensure safety, potency and efficacy. Cold Chain Management refers to those activities and processes required to ensure that the thermolabile supply chain is maintained within the above parameters. Compliance can be attained successfully when a structured approach is taken by each partner within the value chain; which includes Manufacturers, Wholesalers, Distributors and Pharmacies.

In February 2015, the South African Pharmacy Council released amendments for implementation to the Rules Relating to Good Pharmacy Practice, which expands the scope of requirements for thermolabile products from storage to include procurement and distribution. Furthermore, the obligations related to storage have increased where Pharmacies now have the challenge of increasing cost, time and effort to meet these requirements. This discussion will endeavour to elaborate on specific impacts of these changes while also providing some key considerations, potential answers to frequently asked questions and guidance to assist compliance in managing the cold chain at pharmacy level.

Speakers will include Sarantis Kosmas and Ari Nerwich of Strategnos, and a panel will include a representative from Pharmacy Council and a pharmaceutical industry representative.

Starting time will be 19:00 for 19:30. Refreshments will be available from 19:00.
PSSA Member attendance will be free of charge.



Chronic Renal Disease

D Sieff, FPS

The August Clinical CPD session had as its subject "Chronic Renal Failure and its Management" presented by Prof AM Meyers, Nephrologist and Chairman of the National Kidney Foundation of South Africa.

In his opening remarks Prof Meyers indicated that the condition is now termed Chronic Renal Disease. It is the 5th commonest cause of death – three times more prevalent than breast cancer. Currently it is estimated that 10% of the world population suffers from CKD and this figure is expected to rise to 13% to 14% of world population by 2020. He defined CKD as permanent dysfunctions of vascular, glomerular, and other physiological systems and the resulting abnormalities.

A review of studies conducted in South Africa showed the common causes and incidence of CKD. A lack of diagnosis or referral to nephrologists were significant factors relating to the poor prognosis for patients. Incorrect prescribing, the use of contraindicated medications, poor blood pressure control and diabetes management were important factors contributing to CKD.

Prof Meyers urged pharmacists to become "part of the team" by checking compliance, monitoring undesirable medications used by patients, monitoring blood pressure and monitoring diabetes control, and assisting with referrals to nephrologists. He recommended that pharmacists should refer to SAMJ articles published in March 2015 Vol 103, No 3, which address the subject.

Thanks were expressed to AMGEN Pty Ltd for their sponsorship of the session.

The Pharmaceutical Society of SA's Young Pharmacists' Group (YPG)

The YPG is an initiative of the International Pharmaceutical Federation (FIP) that is supported by the Pharmaceutical Society of SA. Young pharmacists are the foundation around which the profession and the PSSA will evolve in the future.

The objectives of the YPG is to facilitate communication with young pharmacists, to learn from their perceptions and to debate and promote the objectives of the Society through participation in PSSA projects and activities.

Around the country YPG plans to introduce members to their respective PSSA Branches where they can become active voting members and by participation help to make a difference.

The YPG network consists of individual members of the PSSA who are recent graduates i.e. up to 5 years after initially graduating with a pharmacy degree or under the age of 35 years.

In the Southern Gauteng Branch of the PSSA there are more than 400 members who fit these criteria. An invitation has been extended to these members to attend a dinner preceded by drinks and an introduction to the YPG at the Southern Gauteng Branch of the PSSA, to take place on the evening of 20 October. The Southern Gauteng Branch of the PSSA looks forward to welcoming those members of the Branch who fall into that age category and are eager to learn more of the initiatives of the YPG and the Branch.

Building Progress - 54 Glenhove Road

Since the previous report much activity has been evident on the building. The weather has been kind and allowed the building to progress without hindrances.

Scaffolding for roof before laying of concrete.

Front of the building takes shape.

North east perspective with garage entrance adjacent to the crane.

Proximity to 52 Glenhove Road.

Another perspective of the front of the building

On a Saturday last June 2015, my wife Christine and I agreed to attend a **basic life support course** for healthcare providers at the offices of Medical Minds in Athol Road, Waverley, Johannesburg.

This came about after we spoke to one of our friends, an Emergency Services Chaplain in Springs, East Rand. He had done this course as he is usually the first person to arrive on the scene when responding to a call out.

So on a freezing Saturday morning we arrived at the premises of Medical Minds, not knowing what to expect. We had done a basic First Aid Course almost 30 years back at 'Varsity and I felt this refresher course would benefit us as we are both PCDT qualified pharmacists and, as happens in life, people rush into pharmacies with all kinds of emergencies these days!

We began the morning with lectures on CPR and Choking and then had to perform the practical skills required on manikins. I must say that after the practical session and the exam we felt that we were much better prepared to act wherever and whenever we are needed to try to save a life.

The CPR routine changes constantly and the old "ABC "method we had learned no longer applies. We also gained a lot of knowledge regarding how to resuscitate children and neonates and how to handle choking, especially in children. This course needs to be re-done every two years to keep one in practice and up to date.

We did this course together with another Emergency Services Chaplain and one of the senior firemen on the East Rand. When we asked the fireman how many real-time resuscitations he had done, he said "many," but few had survived, because by the time they arrived on the scene nobody else had even attempted CPR .

This is why we want to share this important training information with our colleagues; we can make a difference wherever we go or work – provided that we are knowledgeable in this basic technique!

Frans and Christine Landman
Editor's Note: The contact details for Medical Minds are:-

Youlanda Finn, Administrator
Medical Minds, 94 Athol road, Waverley, Johannesburg

+27 (0) 11 440 0911 (Office)
+27 (0) 62 005 6986 (Cell), +27 (0) 86 693 7631 (Fax),
youlanda@medicalminds.co.za -
www.medicalminds.co.za

The Chairman of the Editorial Board is David Sieff and the members are Doug Gordon, Neville Lyne, Ray Pogir, Miranda Viljoen, Val Beaumont, Gary Kohn & Jan du Toit. All articles and information contained in The Golden Mortar of whatsoever nature do not necessarily reflect the views or imply endorsement of the Editorial Board, the Branch Committee, the PSSA, its Branches or Sectors. The Editorial Board and the afore-said cannot therefore be held liable. Every effort is made to ensure accurate reproduction and The Golden Mortar is not responsible for any errors, omissions or inaccuracies which may occur in the production process.
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The Golden Mortar
P O Box 2467, Houghton, 2041
Tel: 011 442 3615, Fax: 011 442 3661
nevillel@pssasg.co.za

Your SG Branch Chairman Lynette Terblanche

Your PSSA Southern Gauteng Branch Sector representatives are:

Community Pharmacy:	Tshifhiwa Rabali & Frans Landman
Hospital Pharmacy:	James Meakings & Jocelyn Manley
Industrial Pharmacy:	Yolanda Peens & Walter Mbatha
Academy	Paul Danckwerts & Deanne Johnston

Contact them through the Branch Office: Tel: 011 442 3615

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