The Golden Mortar

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

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MOVING FORWARD – THE PAST AND FUTURE AS REFERENCE POINTS

Prof Sarel Malan – President Pharmaceutical Society of SA

Prof Malan was elected as President of the Pharmaceutical Society of SA at the Annual General Meeting for a second term of office. The Golden Mortar invited Prof Malan to contribute some thoughts for members to ponder.

Prof Sarel Malan

Terry Pratchett, in his book '*I Shall Wear Midnight*' provides us with the following version of a well-known quote: "*If you do not know where you come from, then you don't know where you are, and if you don't know where you are, then you don't know where you're going. And if you don't know where you're going, you're probably going wrong.*"

As a profession we have a long and prestigious history. As the Pharmaceutical Society of South Africa we have more than 70 years of history with the introductory line to the 1946 Chairman's message "*The conception that the strength of our profession does not lie in isolation but in union has been generally accepted by chemists and druggists throughout South Africa"* still as valid as the day the separate groupings came together to form the PSSA. In recent times we have experienced crises in different sectors at different times and survived these as a Society and as a profession in South Africa. One inaccuracy might have been that we handled these as sectoral issues and not as the national pharmacy watersheds they potentially were. The current examples are the pricing regulations, including the dispensing fee and the fees for services. It is critical for Community Pharmacy, both independent and corporate, but they also impact the Academic Sector (student numbers and quality), Industry (medicine accessibility) and both private and public hospital pharmacy (financial management and medicine accessibility). The viability and strength of the profession is thus at stake and it is only as a united PSSA that we will weather this and further storms.

As the PSSA we know that we are the guardian of the pharmacy profession and have been established as the leader in all matters of pharmacy. We are aware of the history of pharmacy in South Africa and where the current *status quo* originated from, but we also know where we are going and stand by our mission "to support and promote the profession of pharmacy in improving medication use and advancing patient care". This is done through promotion of the professional, educational and economic interests of the members; encouraging professional integrity and conduct; promotion and maintenance of health by provision of a safe dependable pharmaceutical service and promoting representivity.

We are the first line resource centre, above reproach and the trusted voice of organised pharmacy and have, through continuous hard and honest work, built the necessary bridges to provide the input that will determine our future. As a Society we have, and must protect, our unity of purpose because it is only as a strong united voice that we will ensure the key role that

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pharmacy needs to play in the health care environment in South Africa. We know where our strength lie as pharmacists and by focussing on our knowledge and utilising resources and skilled support personnel effectively we can provide the healthcare needs of our country. By doing the right things and promoting them we can and will make the difference, providing for professional fulfilment, consumer satisfaction and financial sustainability within a trusted profession.

We know where we came from, where we are and where we want to be; pulling in the same direction, we can't go wrong.

HEALTH AWARENESS DAYS

Eye Care Awareness Month

23 September to 18 October, 2016.

The article below relates to the treatment of common eye conditions as described by a PCDT Pharmacist, as background for those Pharmacists who have an interest in Eye Care and wish to participate in Eye Awareness Month. The purpose of Eye Care Awareness Month is to raise awareness about the importance of eye health, specifically around the prevention and treatment of avoidable damage to the eyes which could lead to blindness.

LOOKING THROUGH THE WINDOWS OF A PATIENT'S SOUL THROUGH THE EYES OF A PCDT PHARMACIST

Johan Moolman, MPS, Registered PCDT Pharmacist

Amongst the many common conditions you will observe in a Primary Care Drug Therapy (PCDT) Clinic are eye conditions. It is very common that a patient will go to his or her pharmacy first for help should they develop an eye condition or discomfort in their eyes.

The most awkward case I have seen in my clinic was a patient who after waking from an afternoon nap felt his eyes were very dry. He normally kept his eye drops next to his bed. This time he was not aware that his wife had attended to her nails while he was sleeping and without looking at the bottle he poured two drops of nail glue into his eye which stuck his two eyelids together. This caused severe anxiety and panic for this poor patient and referral to the nearest emergency room was necessary. (This was no laughing matter…)

Eye conditions are amongst those conditions that one must observe very carefully before making a decision whether to treat or to refer to a doctor. In some cases immediate referral is necessary to prevent further eye damage.

The common rule I use in my clinic is that for any external discomfort of the eye I will examine it and possibly treat, but for any internal discomfort or pain in the eye I will refer the patient immediately to a doctor, especially if it is a chronic pain.

Common Conditions I would treat are the following:

1. **Dry eyes:** This condition is far more common than we think and often it is medication induced and very often by over-the-counter medication. The following medications can cause dry eyes or discomfort in the eyes: Antihistamines (older generation) and decongestants, hormone replacement therapy, anti-depressants (blurred vision and dry eyes), pain relievers e.g. ibuprofen is known to cause dry eyes and blurred vision. Isotretinoin (a vitamin A derivate used for dermatological purposes), proton pump inhibitors, chemotherapy and antipsychotic medications are examples. Prevention is often better than cure, if a patient is on chronic treatment on any of the above; it is advisable to suggest a moisturising eye drop to be supplied with their prescription medication.
2. **Small burst vein on the eye**: Check the patient's blood pressure first! Often this might be caused by uncontrolled blood pressure and no pain is involved. If the cause was not blood pressure, ask the patient if he or she had lifted or carried something heavy before the episode. Dry eyes can also be a possible cause. If blood pressure is high, refer the patient to a doctor, otherwise a five day course of anti-inflammatory e.g. diclofenac could help to clear up the haemorrhage quickly.

3. **Foreign objects in the eye:** for example resulting from woodwork or metalwork. I check if I can see an object stuck to the eye surface e.g. a small metal piece. I first bathe the eye with a normal saline solution to see if the object can be rinsed off of the eye. If the object is not clearly visible I also ask the patient to pull his or her eyelids over each other to see if the object can be removed. If that does not remove the object, I swab the eye with a cotton bud. The object will often adhere to the cotton bud and be lifted off the surface of the eye. You will be this patient's hero!
4. **Eye infections:** The patient's perception of any discomfort affecting their eyes is that it is an eye infection. This is where your role of differentiating between an eye infection, allergy, internal eye pressure or possible ulcer is very important. The first sign I look for or try to establish is whether there is a yellow exudate coming from the eye, especially on waking up in the morning. The yellow exudate is the typical sign of a bacterial eye infection. The next question I ask is the frequency that this infection may occur - because the underlying cause could be a chronic sinus infection or even diabetes, if the patient has a tendency of suffering eye infections on a regular basis. I would do a full examination to make sure and if not I would treat according to the Essential Drug List (EDL) for PCDT pharmacists.

   If there is a watery discharge associated with an itching sensation I would normally consider an antihistamine, if this is the only symptom associated with the itch. Do check for sinusitis too, when examining the patient.

   Should there be a watery discharge associated with pain and a very red eye, I refer the patient. These are normally viral infections and would need further examination to prevent damage to the eye. Patients often have eye drops at home. Advise them not to use any cortisone or corticosteroid in their eyes unless their doctor told them to do so, because they can aggravate a viral infection.
5. **Contact lens irritation to the eye:** A patient wearing contact lenses complaining about pain on the surface if the eye gets referred immediately, especially if they have been wearing the lenses for a while. Some patients have the tendency of leaving the same lenses in for days without removing them or cleaning them. The possibility of an ulcer forming on the eye is a high risk and can lead to blindness, if it is left untreated. Advise patients to remove and clean their lenses on a regular basis.

Advise patients to have their eyes tested on a regular basis especially if they are on any of the treatments for chronic conditions mentioned above. Ask your diabetic patients about their vision and advise them to have their eyes tested for cataracts. Your older patients who complain of visual problems must also be referred for tests, to make sure they don't have cataracts.

As a PCDT pharmacist, one can play an important role in preventing damage to your patient's eyes by identifying underlying problems and providing accurate advice to your patients. Don't just grab the nearest eye drop from the shelf without examining the eye first. Your knowledge could possibly save a patient's vision. Ask your front shop staff to refer all patients with eye conditions to you.

Law & Ethics

Contributed by Val Beaumont, M Pharm, FPS

SCHEDULED SUBSTANCES WHICH MAY BE PRESCRIBED BY "AUTHORISED PRESCRIBERS"

The National Drug Policy (1996) proposes,

- the facilitation of broader access to prescription medicines by the establishment of a wider range of competent prescribers, and
- Enforcement of good dispensing and prescribing practices.

Pharmacists may dispense prescriptions for these medicines which are written by the respective authorised prescribers[1]. Manufacturers and wholesalers may provide medicines to these persons provided they have been validated as legitimate recipients.

The authorisation of certain categories of registered health professionals to prescribe certain scheduled medicines is dependent upon,

- an empowering qualification and competencies being registered by the relevant professional council,
- the course or qualification must be accredited for this purpose by the statutory council concerned,
- clinical conditions which would be appropriate to be diagnosed and managed by such persons must be explicit, and
- The listing of medicines or substances which may be prescribed must be included in the medicines schedules.

Specific schedules of medicines have been published to date in terms of s22A(4)(a)(v) of the Medicines Act for the categories of persons listed below[2];

- Emergency Care Providers (S1-S6):
  - Paramedics with a National Diploma in Emergency Medical Care, and
  - Emergency Care Practitioners with a Bachelor of Technology Degree in Emergency Medical Care and registered with the Health Professions Council of South Africa;
- Dental Therapists with a Bachelor's degree in Dental Therapy and registered with the Health Professionals Council of South Africa may prescribe certain medicines in S1 and S2.
- Optometrists with a Bachelor degree in Optometry and registered with the Health Professions Council of South Africa may prescribe certain medicines in S1-S4.
- An authorised prescriber may dispense their prescription only if they are licensed dispensers[3].

The following tables summarise the schedules which can be accessed by specific authorised prescribers[4].

SCHEDULES FOR OPTOMETRISTS AS AUTHORISED PRESCRIBERS

Therapeutic Classification	Substance	Route of Administration	Indication
Schedule 1			
Ophthalmic preparations: other	Fluorescein	Intra-ocular	For diagnostic purposes only ie in detecting corneal abrasions and foreign bodies in the eye, in applanation tonometry, in assessing the patency of the nasolacrimal duct and in contact lens fitting procedures.

[1] MCC circular 2.37. Scheduling of substances for prescribing by authorised prescribers, April 2004.
[2] Schedules published in terms of the Medicines Act, June 2016, GG40041, G/N 620.
[3] Medicines Act Regulation 22C
[4] Medicines Schedules. June, 2016, GG40041, G/N 620
[4] Consolidated Medicines Schedules 2008 - 2015

Schedule 2			
Antibacterial	Mupirocin	Topical application	Impetigo (eyelids): external hordeolum, infected atopic dermatitis
Antihistamine, vasoconstrictor, mast cell stabiliser	Antazoline	Topical application	Allergic and atopic conjunctivitis
	Tetrazoline		Minor ocular irritation; red eye
	Oxymetazoline		Minor ocular irritation; red eye
	Cetrizine	Oral	Atopic dermatitis involving the eyelids
	Sodium chromoglycate	Topical application	Viral kerato conjunctivitis
Steroidal anti-inflammatory	Hydrocortisone	Topical application	Dermatitis, ectopic or seborrhoeic eczema
Schedule 3			
Cycloplegics	Atropine	Topical application - drops	Cycloplegics refraction; treatment of uveitis
Mydriatics cycloplegics	Tropicamide		Cycloplegics; mydriatic
	Cyclopentolate		Cycloplegics; mydriatic
	Homatropine		Cycloplegics; mydriatic
Antique glaucoma	Pilocarpine		Acute glaucoma
	Timolol		Acute glaucoma
Schedule 4			
Antibacterial	Chloramphenicol	Topical application	Bacterial conjunctivitis anterior blepharitis; posterior blepharitis
	Tetracycline		Chlamydial conjunctivitis; blepharitis
	Erythromycin		Chlamydial conjunctivitis; blepharitis; impetigo. (Not to be used as first line treatment)
	Acyclovir		Conjunctivitis; herpes simplex blepharitis; epithelial keratitis
Local anaesthetic	Tetracaine	Topical application – drops	Diagnostic aide
	Oxybuprocaine		Diagnostic aide

SCHEDULES FOR DENTAL THERAPISTS AS AUTHORISED PRESCRIBERS

Therapeutic classification	Substance	Administration route	Indication
Schedule 1			
Analgesic, antipyretic, anti-inflammatory	Paracetamol	Oral	Dental pain
Surface anaesthetic	Lidocaine/lignocaine hydrochloride	Topical	Dental surface anaesthesia
Anti-viral	Acyclovir	Topical	Viral infection lips
Vitamins & minerals		Oral	Applicable dentistry
Mouth and throat preparations		Oral	Applicable dentistry
Schedule 2			
Analgesic, antipyretic, anti-inflammatory	Ibuprofen	Oral	Dental pain
Analgesic, antipyretic, anti-inflammatory	Codeine in combination with 1 or more actives and containing 20 mg or less of codeine (calculated as base) per dosage unit	Oral	Dental pain
Antifungals S2	Nystatin	Oral	Candidal infections-oral cavity

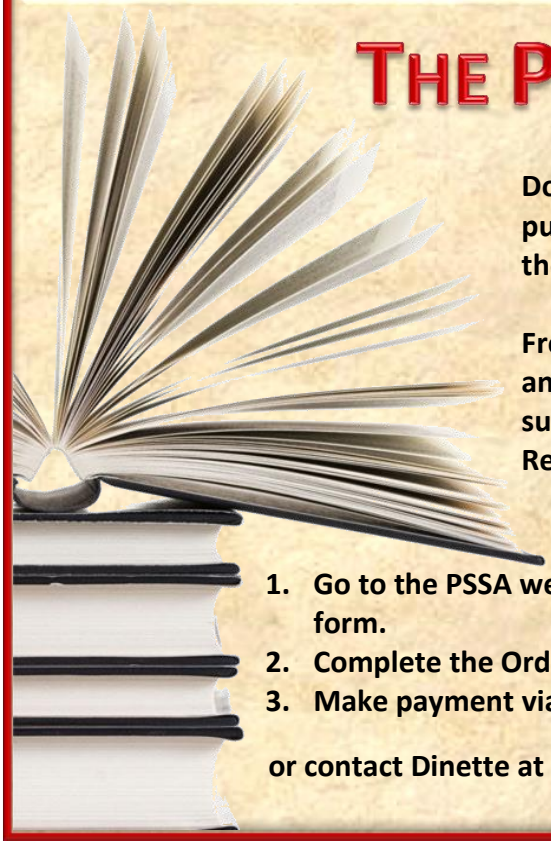
SCHEDULES FOR EMERGENCY CARE PROVIDERS AS AUTHORISED PRESCRIBERS

				Paramedic	Practitioner
Schedule 1					
Local anaesthetic	Lignocaine hydrochloride	Topical	Local anaesthesia	Yes	Yes
Schedule 2					
Anti – cholinergic	Ipratropium bromide	Respirator solution	Inhalant bronchodilator	Yes	Yes
Schedule 3					
Platelet aggregation inhibitor	Clopidrogel	Oral	Platelet aggregation	Yes	Yes
Plasma substitutes and colloid solutions	Dextran	Parenteral	Plasma expander	Yes	Yes
	Hydroxyethyl starch				
	Sodium Chloride				
Selective beta2 agonists	Salbutamol	Inhalant	Bronchodilator	Yes	Yes
	Fenoterol				
Mineral supplement, electrolyte	Calcium chloride	Parenteral	Positive inotrope - peri-cardiac and cardiac arrest, electrolyte, mineral supplement	Yes	Yes
Other mineral supplements	Magnesium sulphate	Parenteral	Mineral supplements; prevention and control of seizures and hypertension in toxaemia of pregnancy	Yes	Yes
Carbohydrates	Dextrose	Parenteral	Nutrition, acute symptomatic hypoglycaemic treatment	Yes	Yes
High ceiling loop diuretic	Furosemide	Parenteral	Diuretic	Yes	Yes
Organic nitrates	Glyceryle trinitrate	Oral	Vasodilator	Yes	Yes
Anti-emetic	Cyclizine	Parenteral	Antihistamine, anti-emetic	Yes	Yes
Co-enzyme	Thiamine vitamin B 1	Parenteral	Nutritional supplement, vitamin be – emergency treatment of Wernicke's encephalopathy and Beriberi	Yes	Yes
Schedule 4					
Anti-arrhythmics	Adenosine	Parenteral	Endogenous period in the clear side – supraventricular anti a rhythmic	Yes	Yes
	Amiodarone		Class III anti a rhythmic – at real and ventricular		
	Lignocaine hydrochloride		Class I B – ventricular anti a rhythmic		
Adrenergic	Adrenaline/ Epinephrine	Parenteral	Sympathomimetic catecholamine	Yes	Yes
Anti – cholinergic	Atropine	Parenteral	Competitive anticholinergic, bradycardia, anti-arrhythmic	Yes	Yes
SelectiveB2 agonists	Salbutamol	Parenteral	Bronchodilator	Yes	Yes
	Fenoterol				
Corticosteroids	Hydrocortisone				
	Methylprednisolone	Parenteral	Glucocorticoid, steroidal anti – inflammatory	Yes	Yes

Hyperglycaemic agent	Glucagon	Parenteral	Hyperglycaemic agent	Yes	Yes
Anti – emetic	Metoclopramide mono hydrate	Parenteral	Propulsive anti – emetic, dopamine antagonist	Yes	Yes
Opioid antagonist	Naloxone hydrochloride	Parenteral	Opioid antagonist, narcotic antagonist	Yes	Yes
	Nitrous oxide	Inhalant	Analgesic gas	Yes	Yes
Thrombolytic agents	Streptokinase	Parenteral	Thrombolytic enzymes	No	Yes
	Tenecteplase			No	Yes
Anti-thrombotic agents	Enoxaparin	Parenteral	Anticoagulant	No	Yes
	Heparin sodium			No	Yes
Schedule5					
Benzo-diazepine derivatives	Diazepam	Parenteral	Anti – convulse it, sedative, hypnotic	Yes	Yes
	Midazolam			Yes	Yes
	Lorazepam			Yes	Yes
Benzo-diazepine antagonists	Flumazenil	Parenteral	Benzodiazepine antagonist	Yes	Yes
Nonselective antihistamine	Promethazine	Parenteral	Antihistamine	Yes	Yes
Induction agents	Ketamine	Parenteral	Induction agent	No	Yes
	Etomidate			No	Yes
Schedule 6					
Analgesics	Morphine sulphate	Parenteral	Opioid narcotic	No	Yes

Note: Schedules for authorised prescribers.

In response to enquiries received by the Southern Gauteng Branch Office from Pharmacists as to whether Authorised Prescriber schedules for Podiatrists and Physiotherapists have been published – the answer is NO.



THE PSSA BOOK DEPARTMENT

Do you know that the Book Department has a range of essential publications for pharmacists at preferential prices for members of the PSSA?

From overseas publications such as Martindale, the Merck Manual and the Oxford Concise Medical Dictionary to local publications such as Good Pharmacy Practice, the Scheduled Substance Register, Drug wise and many more.

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or contact Dinette at PSSA Head Office on 012 470 9559 - How easy is that?

The PSSA – pharmacy in action!

NHI
A CASE FOR PHARMACY

Frans Landman, Community Pharmacist


Frans Landman

During the period 2005-2008, we experienced the emergence of the corporate threat with first Clicks then Dis-Chem, and then MediRite opening around us. This resulted in us loosing 70% of our prescription medicine portion of our turnover. We were in dire straits as to which way to go – we contemplated selling our pharmacy which was not a choice we wanted to take. We had run the pharmacy since 1991, after purchasing it from Mr Jack Trump, who had been there for 40 years. The original owners, before him, started the pharmacy around 1920.

The answer to our prayers came with Sister Marijke van Der Walt who approached us after the pharmacy she worked for closed its doors, and she became unemployed. She had thirty years of experience in primary health care, specialising in immunisation and family planning. With her experience in working for Ekurhuleni metro for years, she was qualified to set the ball rolling in obtaining immunizations and family planning stock from the local clinic, in a private / public partnership. Our private clinic area was inspected by the Department of Health to see if we complied with their standards, after which we obtained a letter of approval from Ekhurhuleni to commence our services.

We are situated right in the middle of town (CBD) and deal mostly with the poorest of poor from all strata of society. Our patients come from town, squatter camps and the townships.

In 2010, my business partner and wife, Christine, identified the need for us to commence with Primary Care Drug Therapy (PCDT) training as we have a lot of poor customers that need primary healthcare services.

I started with my PCDT training at North West University in 2012 and completed the course in 2013, after which my wife undertook the course and finished in 2015. I only received my permit from the NDOH on 1 February 2016, after the moratorium was lifted late 2015.

We previously used a clinic program to manage patient history but, changed to the “Allegra Clinic Pro and Wellness Option” late in 2015 as it has a built-in option to manage stock especially vaccines and contraceptives, which facility is vital as we are accountable regarding State stock.

At the time, we did not realise that we worked in a model that suits NHI / private pharmacy initiatives. We see up to 800 patients a month whose requirements vary from primary health care to immunisations to family planning and more. We charge a fee for service, and dispense medicines as per the PCDT permit. In one month we had four emergencies alone of which 3 were anaphylactic shock cases and one haemorrhage that we were able to stabilize. We make a difference!

We have a good relationship with our local clinic staff, who work under immense pressure and can see up to 300 cases a day. We order our stock on a monthly basis after compiling our stats at the beginning of the month. We draw stock one to two weeks after the stock has been ordered for us from the “pre-pack unit” at Dunnottar. We deal with challenges as there are stock-outs at times, but we are in a position to offer private stock to patients when DOH stocks are not available. However, because of poverty amongst community members many parents cannot afford to pay for private stock.

In June 2015 we attended a basic life support course as we realized that members of the public require such services as they experience life threatening situations. While one can't save all, but if properly prepared, one can try to.

There are many challenges that we have to deal with every day, but thanks to the vision of my wife Christine this saved our pharmacy that has been serving the community of the greater Brakpan area since 1920.

The work satisfaction that we derive from our extra qualifications makes it worthwhile to go to work every day, and to know that every day you can make a difference in someone's life! And, to save some as well, such as a car guard with anaphylactic shock due to a bee-sting.

CONTROL OF ACCESS TO PHARMACY PREMISES

Contributed by David Sieff, FPS

The most recent edition of PHARMACIAE, the official publication of the SA Pharmacy Council (SAPC), featured a report of some important decisions made by the Council, some of which relate to control of access to pharmacy premises.

SAPC inspectors had raised a concern over *unfettered access* to pharmacy premises. Observations revealed that a pharmacist, lay owner or store manager (not registered with Council) each held different keys to the pharmacy – the "double-lock" system in which both pharmacist and store manager (or lay owner) need to be present to open the premises - which is acceptable, as the pharmacist is present.

However, according to the *Rules relating to Good Pharmacy Practice (GPP),* a pharmacist must have *unfettered 24-hour access* to the pharmacy and medicines - also, the Responsible Pharmacist (RP) must ensure that any key or device allowing access to a pharmacy, is kept only on his or another pharmacist's person, thus preventing unauthorised access to the dispensary and scheduled substances in their absence by unregistered persons.

The RP must be able to demonstrate to an inspector that he/she is able to open the premises at any time of the day, and that the pharmacy trades only when a pharmacist is present. The RP must in addition provide a written Standard Operating Procedure (SOP) clearly showing that there is controlled access to the pharmacy, and also covers access in emergency or extraordinary situations.

In case of a primary healthcare clinic (PHC) in the public sector, the post-basic Pharmacist's Assistant (PA) must ensure that any key or device which allows access to a dispensary or medicine room, is kept only on their person. Allowance is made for a pharmacist, a pharmacy technician (PT), a PA, a licensed dispenser, or even an operational manager/nurse may hold the keys, but the PA or PT must be present when the dispensary opens. An SOP must be written to cover all such situations.

Council resolved in October 2015 that the inspection questionnaire be amended to include a question on the SOP regarding persons authorised to hold the keys in emergency circumstances, in line with the GPP rule that "*a procedure must be in place to ensure access to pharmacy premises in an emergency situation in compliance with the Occupational Health and Safety Act.*"

Pharmacists must take note of these decisions and resolutions of Council and their inclusion in the GPP rules, as inspectors will now be on the look-out for discrepancies in this regard, including a written SOP covering controlled access and key holders.

Attention Deficit Hyperactivity Disorder is a subject included in the Health Awareness Programme for the 14th September. The article that follows provides background information on the subject.

ADULT ADHD NEEDS YOUR ATTENTION

Stephani Schmidt M.Sc (Pharm), Medicine Information Pharmacist
Amayeza Info Services

Introduction

Attention deficit hyperactivity disorder (ADHD) was previously viewed as a childhood disorder. It was thought that ADHD is outgrown by the end of adolescence and the beginning of adulthood with limited effect on adult psychopathology. However, adults are often affected by the symptoms and impairments that define ADHD.

It's estimated that ADHD affects about 3,4% of the adult population. It has been found that a majority of individuals who were diagnosed with ADHD in childhood, continue to meet criteria for ADHD as adults. It has also been reported that 40 to 60 percent of children with ADHD go on to have significant ADHD-related problems in adulthood. In addition, evidence suggests that many adults meet the full criteria for adult ADHD, despite not having met the full ADHD criteria during childhood.

Symptoms in adults

The development of ADHD and the chain of events leading to ADHD in adults is not known. Evidence of structural brain abnormalities (relating to functional impairments seen in ADHD) has been observed in ADHD patients.

In adults, ADHD is characterised by symptoms of impulsiveness, restlessness, inattention, executive dysfunction and emotional dysregulation, which result in functional impairment. In addition, ADHD significantly worsens the quality of life in adults.

Clinical presentation of ADHD in adults is usually more subtle and diverse. When compared to the typical features of ADHD in children, the predominant features in adults vary with symptoms such as inattention being more noticeable while symptoms of hyperactivity or impulsivity are less obvious or overt.

Clinically significant impairments in neuropsychological functioning, such as impairment on measures of vigilance, working memory, verbal learning, perceptual-motor speed, and response inhibition, have been observed in adults with ADHD.

ADHD is often comorbid with other psychiatric disorders such as mood, anxiety, substance use or intermittent explosive disorder, which makes an accurate diagnosis difficult. Findings suggest that the likelihood of comorbid psychiatric disorders increases and often becomes more evident as people with ADHD age, while the underlying ADHD becomes less evident. As a result, patients are often treated for the comorbid condition while ADHD tends to be unrecognised and untreated.

Treatment

Failure to recognise and treat ADHD may be detrimental to the well-being of many adults seeking help for mental health problems. Medical treatment is preferred over psychotherapy as first-line treatment for adults with ADHD. However, medical treatment should always form part of a comprehensive treatment programme that addresses behavioural, psychological and occupational or educational needs.

Stimulants such as methylphenidate and amphetamines (dextroamphetamine* or lisdexamphetamine*) are the most commonly prescribed and most extensively tested medications for ADHD in patients of all ages.

Methylphenidate is currently considered the treatment of choice for adults with persisting ADHD. Dexamphetamine*or atomoxetine may be considered for patients who do not respond to methylphenidate treatment or who are intolerant to methylphenidate.

In cases where atomoxetine is ineffective, bupropion or a tricyclic antidepressant could be tried followed by an alpha-2 agonist.

Clonidine or guanfacine* are generally used third-line in children and adolescents with ADHD or for certain clinical subgroups. However, not much is known about their safety, efficacy and tolerability in adults and alpha-2 agonist are therefore reserved as fourth-line treatment options following stimulants, atomoxetine and antidepressants.

*These products are currently not available in South Africa

Depending on the comorbid disease, an alternate first-line treatment may be more appropriate in some adults:

- Atomoxetine is suggested for adults with ADHD and a history of a substance use disorder or if there is a concern about the potential for drug misuse.

- Bupropion (or a tricyclic antidepressant) is suggested for adults with ADHD and comorbid depression. Bupropion is also an alternative treatment option to atomoxetine for adults with ADHD and a history of a substance use disorder.
- The combination of a stimulant and a selective serotonin reuptake inhibitor (SSRI) has been found to be more effective and/or better tolerated than other medications in patients with comorbid generalised anxiety disorder.

Cognitive-behavioural therapy (CBT) may be considered for adults where medication is contraindicated, when psychotherapy is preferred to medication, for those who did not respond to medical treatment or in addition to medication for patients with residual impairment despite some benefit from medical treatment.

Conclusion

Substantial impairment in academic, occupational and social functioning has been associated with ADHD in adults. ADHD is now known as a developmental disorder that may persist over the lifespan of the individual. Early diagnosis and pharmacological treatment have a positive impact on outcome and long-term prognosis. Treatment does not only alleviate symptoms and functional impairment associated with ADHD, but may also improve the patient's quality of life.

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8. Monthly Index of medical specialities. Volume 56 Number 6 July 2016

I refer to the article "Responsible Pharmacists under pressure" by Gary Black in the Tincture Press which was reproduced in Edition 5 of The Golden Mortar in July, 2016.

I agree with Gary and have some additional comments and suggestions.

In every case where an application is made for a pharmacy license by a lay owner, whether it be for a retail pharmacy, private hospital pharmacy or factory, the lay owner, and in the case of a public company, the designated director, has to sign a declaration under oath that the company will-

"Ensure to ensure compliance with all applicable legislation, regulations and professional obligations"- (as quoted directly from the application form for a pharmacy license).

It seems that while Responsible Pharmacists are well aware of their responsibilities, the lay owners, despite the signing of a Statutory Declaration under Oath, are NOT aware of the contents of the "regulations and professional obligations" to which the company has been committed by such signature under Oath. It therefore follows that the lay managers of the various facilities are also not aware of the Law.

I suggest that the South African Pharmacy Council and The Medicine Control Council compile a document with full details of the legal obligations to which they, the lay owner signatories, have been committed under Oath and their obligation to fully understand the regulations under the Pharmacy Act, the MCC guide to GMP and the Medicines Act.

Every successful applicant should sign for the receipt of such a document accompanied by an undertaking that the lay manager of every such pharmacy would also sign for the receipt of the document and is instructed to comply with the law.

Concerned Pharmacist and member of Pharmaceutical Society of SA

At the Clinical CPD session held on the evening of 21 July, on the above subject, Dr Prudence Ive, Consultant Physician at the Helen Joseph Hospital's Department of Medicine and Head of Infectious Diseases opened her presentation by giving an overview of the HIV life cycle. Dr Ive then tabulated the various drug classes of FDA approved HIV medicines introduced since 1987 and described their modes of action.

A summary and comparison of the South African Adult ART Guidelines from 2004 to 2015 showed the advancement in understanding and treatment of HIV infected patients. Whereas in 2004 it was recommended that patients with CD4 counts of ≤200 cells/mm³ should be started on ART, in 2015 the guidelines recommended that patients with CD4 counts of ≤500 cells/mm³ be started on ART.

The long-term efficacy and tolerability of medicines used for the treatment of HIV has improved significantly over these years. Dr Ive also addressed the use of combination HIV medicines. Her presentation brought a new level of understanding of HIV management for many of the pharmacists who attended the session.

Thanks are due the Southern Gauteng Branch of the PSSA for sponsoring this Clinical CPD session.

PHARMACY AND PHARMACISTS IN CARICATURES AND COMEDY

Ray Pogir, FPS - Curator, National Pharmacy Museum

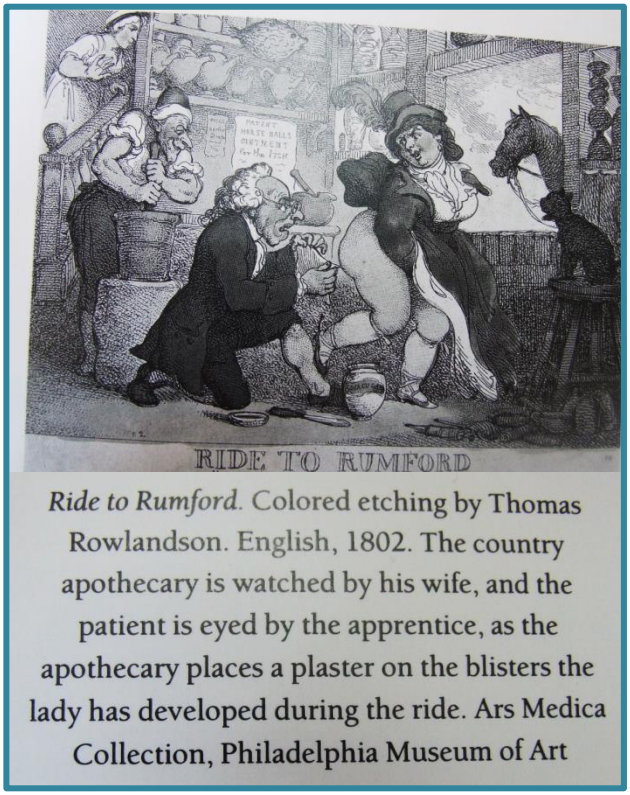
Throughout the ages, artists and comedians have poked fun at characters and situations which reflected on themselves, the way they lived, their society and the failings of mankind.

Humour and satire served to lighten the burden of illness and poke fun at both the prescriber and the preparer of the medicines people had to take.

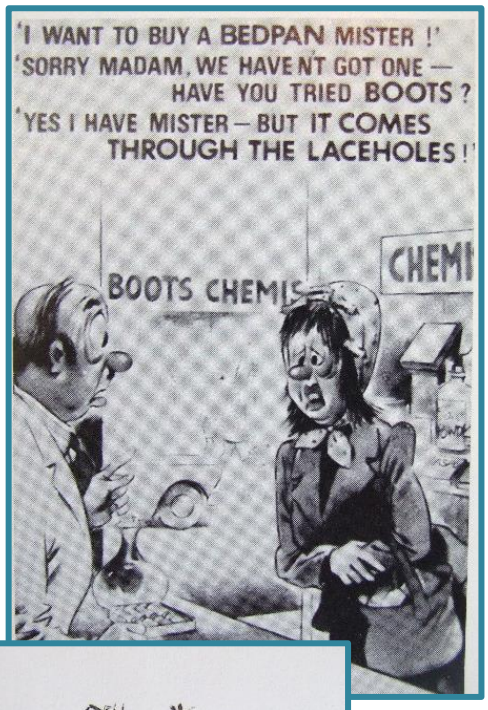
Cartoons and satire often revealed more about people and society at a particular time in a concise manner which was easily understood and appreciated.

Our library has a number of volumes and articles which clearly illustrate the intention of the artists and satirical writers to depict pharmacists in both comical and serious situations to which the public can relate.

Pharmacists often have a talent to produce humorous cartoons and we invite them to send us copies for their colleagues to enjoy.

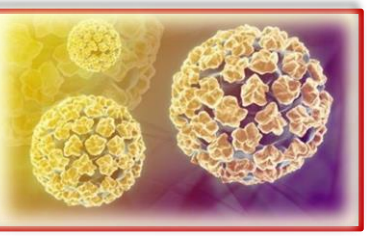


Ride to Rumford. Colored etching by Thomas Rowlandson. English, 1802. The country apothecary is watched by his wife, and the patient is eyed by the apprentice, as the apothecary places a plaster on the blisters the lady has developed during the ride. Ars Medica Collection, Philadelphia Museum of Art



A British lithograph (1841) by C J Grant satirizing the effects of James Morrison's Universal Vegetable Pills, a popular patent medicine of the nineteenth century.

HUMAN PAPILLOMAVIRUS INFECTION



Sumari Davis
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Introduction

Human papillomavirus (HPV) is a double-stranded DNA virus that infects only humans. More than 120 HPV types have been identified. HPV can infect the skin (cutaneous) or mucus membranes to cause warts or different types of cancers. Worldwide, the incidence of HPV infection is 10% in women with 500 000 new cases of cervical cancer diagnosed annually, but in Africa as much as 22% of women have evidence of HPV infection. In South Africa, more than 7 700 women are diagnosed with cervical cancer every year and ultimately the disease will result in the death of more than half of these women.

HPV infection is most commonly transmitted via direct skin-on-skin contact, usually during sexual activity. However, rare cases of transmission from mother to child have been reported and this can lead to recurrent respiratory papillomatosis where warts caused by HPV can grow in the throat of the child.

HPV is the most common sexually transmitted disease, and although it is estimated to be highly communicable, infection is cleared naturally in most people (9 out of 10) within 2 years. There are measures to reduce HPV infection and vaccines currently available in South Africa can protect against 4 strains of HPV that commonly causes genital warts and cervical cancer.

Warts

Cutaneous infection with HPV types 1,2 and 4 are the most common causes of plantar and common warts. Common warts usually on the hands, fingers or elbows, occur in 10% of children with the incidence peaking between the ages of 12 and 16 years. Plantar warts occur on the heels or balls of the feet and can cause discomfort. Flat warts, most commonly caused by types 3 and 10, are slightly raised lesions darker than the skin and can appear anywhere. However, in children they are seen most commonly on the face, in men in the beard area and in women on the legs. HPV types 6 and 11 tend to infect mucous membranes and are the most common causes for genital warts.
Treatment of warts is recommended for patients with bothersome symptoms and/or for those who suffer psychologic distress because of the warts. Options include treatment with medication such as salicylic acid, imiquimod and podophyllin. Tricholoroacetic acid (TCA), bicholoroacetic acid (not available in South Africa) and interferons are the only treatment options for vaginal warts. TCA can be used in pregnancy but should be applied in a doctor's room. All therapies are associated with local itching, burning and pain and can lead to scarring and chronic vulvar pain.

Other procedures that can be considered include cryotherapy (freezing with liquid nitrogen), electrocautery (burning with electric current), laser surgery and surgical removal. Patients should be warned that removal of the wart does not eradicate the infection and warts can therefore recur.

Cancer

Although HPV infection clears spontaneously in most instances, infection in some people may be persistent and over time can lead to benign cervical cell changes that can either revert or further develop into precursors to cancer and anogenital cancers. High risk HPV types are detected in 99% of cervical cancers with HPV types 16 and 18 accounting for up to 70% of these. There are 15 HPV types that can lead to cancer. In addition to cervical cancer, HPV can also cause cancer of the vulva, vagina, penis, anus and oropharyngeal cancer. Because it can take 10 years or longer after HPV infection for cell changes to occur, it is important to screen regularly to detect and treat cell changes early.

Reducing the risk

The risk for contracting HPV infection increases with the number of sexual partners. Immunosuppression due to HIV or the use of immunosuppressive drugs can reduce the ability to fight off HPV infection. Damaged skin and direct contact with infected patients or surfaces found in public showers or swimming pools can also increase the risk of contracting HPV infection.

Since infection is spread via skin-to-skin contact, transmission can be reduced by physical barriers such as male and female condoms. However, condoms do not provide full protection as some skin-to-skin contact can still occur.

In South Africa there are currently two vaccines available without prescription to prevent HPV infection. Vaccination is most effective if given before exposure and should therefore be offered to children and teenagers before they become sexually active.

Cervarix® protects against HPV 16 and 18 and can be given to female patients from 9 years of age. Patients of ages 9 through 14 years will need two doses with an interval of 6 months between doses. Patients older than 15 years will need a series of three doses with the second dose 1 month after the first and the third dose 5 months after the second dose. Gardasil® contains HPV 16 and 18, but also includes antigens against HPV 6 and 11 (common causes of genital warts). It is indicated for male patients of ages 9 through 26 years of age and in females in ages 9 through 45 years of age. Children of ages 9 through 13 years need two doses given 6 or 12 months apart. Patients 14 years and older should receive three doses with the second dose 2 months after the first and the third dose 4 months after the second dose. A 9-valent HPV vaccine have been registered in the United States, but is not available in South Africa at the moment.

The community pharmacist is well-placed to educate people about HPV and encourage vaccination. However, since there are many types of HPV that can cause cancer and since the vaccines only protect against some of the strains, vaccination does not eliminate the need for continuous cervical screening.

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7. Cervarix (Bivalent HPV vaccine) Package Insert GlaxoSmithKline South Africa
8. Gardasil (Quadrivalent HPV vaccine) Package Insert MSD PTY (Ltd) South Africa

Placement of Classified Advertisements

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- Classified Advertisement requests should be e-mailed to nitsa@pharmail.co.za
- This service is provided at no charge to members of the PSSA.
- Classified Advertisements are usually posted to the website within 3 days of receipt.
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