

## Have your say on new draft tobacco legislation

The draft tobacco legislation is out for public comment until 9 July 2018. It is called "Control of Tobacco Products and Electronic Delivery Systems Bill: Draft.

Vapes and e-cigarettes, also known as electronic tobacco delivery systems, face regulation in terms of the draft Bill.

"...nicotine is a highly addictive and toxic substance; that the long term harmful effects of using electronic delivery systems remain unknown; that the use of electronic delivery systems may encourage the practice of smoking and that the marketing and promotion of electronic delivery systems may target or influence young people and children:"

The purpose of the bill is to control smoking and regulated tobacco and the electronic tobacco delivery systems:

- Regulate: sale and advertising, packaging and appearance.
- Prohibit: sales to people under 18; free distribution; vending machine distribution.
- Provide: standards for manufacture and export.

You will find more information at <https://www.gov.za/document/latest> and comments to the National Department of Health's Chief Director, Health Promotion, Nutrition, Oral Health and Food Control – Ms Lynn Moeng-Mahalngu should be made by 9 July 2018

## North Coast KZN showing the way with free screenings



Phoenix North Coast Cancer Support have commenced their partnership programme with Mahatma Gandhi Memorial Hospital where 150 people were screened with some abnormalities being detected.

**Read more about this exciting group on page 4.**

## International Kidney Cancer Conference



The 8th International Kidney Cancer Coalition Conference for organisations representing kidney cancer patients was attended by over 50 kidney cancer advocates from 25 countries from six continents. Throughout the three-day meeting, patient organisation leaders learned about latest developments in kidney cancer care, discussed active patient involvement and shared experiences with national healthcare policies. The Conference provides an opportunity for patient organisations from around the world to hear the latest information regarding the diagnosis, treatment and management of kidney cancer. The conference also allows patient organisations to share best practices, exchange experiences and work with us to reduce the global burden of kidney cancer. South Africa was represented by Lauren Pretorius, CEO of Campaign For Cancer.

This meeting was held alongside a Clinical Experts meeting hosted by the Latin American Renal Cancer Group (LARCG) the Mexican Society of Urology (SMU) and the Mexican Association of Urological Oncology (MAUO). During the Annual General Meeting, Dr. Rachel Giles, Chair of IKCC, announced the organisation's inaugural Medical Advisory Board.

# Phoenix is rising to the challenge

The Phoenix North Coast (PNC) Cancer Support Group was an invited stakeholder at the National Department of Health's Cancer Roll Out Plan's Consultative meeting held in Pretoria during April 2018. Roy Sukdhev the Founder of the Group attended the stakeholders meeting.

The Department Of Health's invitation highlighted the following information.

"We are reminded of President Ramaphosa's remarkable SONA this year in which he referred to the launch of a Cancer Campaign within three months of his address. The Campaign has been prioritised by the National Health Council and the Department must finalise a Cancer Campaign which is implemented over the next three years. The Campaign will focus on establishing and strengthening the continuum of cancer prevention, treatment and palliative care over this period. It is envisaged that awareness and education on all aspects of cancer including risk factors which are common to other NCDs as well as genetic predisposition will be prioritised in Year One

The establishment of care pathways, strengthening of early detection, screening, diagnosis, treatment, rehabilitation, palliative care and support of survivors will be phased in and strengthened over Years Two, Three, and beyond.

The Minister recognises that successful Campaign outcomes are dependent on partnerships."

Roy Sukdhev said " Our Organisation has been recognised as a key stakeholder in this national process and the Department of Health welcomes the opportunity to engage with us on the design, implementation and monitoring of a National Cancer Campaign which is person centred and rights based. I am proud to say that over the years we have been providing free breast, cervical and prostate cancer screening together with education, awareness and patient empowerment programmes. We want to intensify our screening services over a wider region in Durban in order to alleviate the huge cancer burden the government is facing.

It must also be noted that the government does not have the resources to do this on their own and as a caring community organisation and citizens we have to do our bit to ensure that cancer treatment facilities are in place.

KZN together with other regions has been badly hit in recent years as the services were at its bare minimum or non-existent as equipment were non-functional resulting in oncologists leaving. The National Department of Health is currently looking at upgrading the equipment in KZN Hospitals and identifying oncologists to replace those that have left. The cost for this initiative is in the billions and it cannot be done alone by government.

In order to ensure the indigent and users of state medical care every individual should be playing a contributory role for an effective health system as medical aid is never a guarantee especially if one is retrenched or not working. Cancer is a detrimental disease of the poor. It also impacts heavily on our economy.

In order to reach out to the low income earners We want to provide our free cancer screening and awareness right at the factory floor as well. Employees will not have to take time off from work to go for a cancer check. Early detection will result in early treatment and lesser cost as surgery, chemo and radiations costs thousands of rands.

We have partnered with a very respected and reputable laboratory based in private hospitals who provides trained medical staff on a low fee basis. Businesses and industries are welcome to invite us to provide the screening and awareness programmes. It is sad that owners of businesses do not make use of such free services for the benefit of the staff.

The way forward would have to be through partnerships involving the private sector and community based organisations like ours. Our organisation will be intensifying our cancer screening services and would be referring patients for confirmed diagnosis and treatment once the state hospitals are fully functional.

Together with the DoH we want to improve the quality of lives of the cancer patient. We have commenced our partnership programme with Mahatma Gandhi Memorial Hospital where 150 people were screened with some abnormalities being detected.

I am extremely excited that our Phoenix North Coast (PNC) Cancer Support Group has been recognised by our State President and the National Minister of Health to be one of the stakeholders in this cancer roll out plan. It is only through the financial support of businesses, community, schools etc that we can provide our services to the indigent.

**For further information on cancer screening in the workplace or general enquiry contact Roy Sukdhev on Cell 0836310814.**



## Rondebosch Group

Venue: Waiting Room, 4th floor Rondebosch Medical Centre, Klipfontein road.

Last Monday of each month (except Sept.)

Time: 18:00 – 19:30

Contact Linda Greeff: 0219443700 for more info

## Panorama, Cape Town Group

Venue: Panorama Oncology, 1st floor, 43 Hennie Winterbach Street, Panorama

10:00 to 11:30

Contact: Emerentia Esterhuyse 0219443850, emerentia.esterhuyse@cancercare.co.za

## Cape Gate Group

Venue: 51 Tiger Avenue, Cape Gate, 7560

10:00 - 12:00

Contact: Caron Majewski, 021 944 3807 caron.majewski@cancercare.co.za

## Outeniqua, George Group

Venue: 3 Gloucester Avenue, George

10:00 - 12:00

First Wednesday of each month (except January)

Contact: Engela van der Merwe, 044 8840705, engela.vandermerwe@cancercare.co.za

A strong social support system is vital for both your mental and physical health following cancer. Your social support system will provide guidance, advice, and assistance; offer shoulders to cry on; and help relieve stress.

Many cancer patients find a great deal of solace and help from cancer support groups. Whether your social support is a formal cancer support group, an informal group of friends or family, or a group that convenes around a shared interest, it will give you incentive to get out of the house and a way to form powerful connections. – Huffington Post

## New Cape Town support group

Anyone interested in a new cancer support group, to be based in the southern suburbs of Cape Town and run in conjunction with CANSA, can contact Carima Bee.

There are no times or dates for the group just yet as she is waiting to see where members live and what times suit them. Carima is a qualified social worker and colon cancer survivor at 29!

She is also working on a buddy system for young cancer survivors between the ages of 18-35 as I feel this is a very uncommon age for cancer and there really isn't much support.

Any survivors or fighters in this age group who need guidance and can to contact her at [carimabehardien@gmail.com](mailto:carimabehardien@gmail.com).



CREATING HOPE, LEAVING FOOTPRINTS  
Survivors Day

cancercare

*Invites all Cancer Survivors to join us for an inspiring event  
Creating Hope, Leaving Footprints through Art, Creativity.*

**Guest Speaker:** Wayne McAfee (Director Sport Academy, George)  
Saturday 9 June 2018  
09:30 for 10AM  
George South Primary School  
(23 Laing Str, George)

As part of our program, an **Art Exhibition** and various **Art & Creativity Workshops** will be presented on the day at the same venue.

For enquiries, or to book your ticket for this event or any of the workshops hosted, contact Engela or Elza at 044 884 0806.

Your booking allow for yourself and one special guest to attend.

cancercare

## MONTHLY SUPPORT GROUP Cape Gate Oncology Centre

All welcome to join us  
in the Boardroom, first floor  
CancerCare Cape Gate

**Friday, 25 May from 10:00-12:00**  
**Topic: Healing through creativity**

**Friday, 22 June from 10:00-12:00**  
**Topic: Emotional freedom technique**  
**Call Caron, Oncology Social Worker**  
**for more info – 021 944-3807**



You are cordially invited to join us at our public meetings where breast cancer patients and their friends and families have an opportunity to mix with other patients and survivors, as well as to listen to talks on issues related to breast cancer.

Here are our Bosom Buddie Dates and themes for the rest of this year.

- 16 June – Physical Well Being
- 28 July – Complementary healing
- 8th September – Move for Summer
- 13 October – Survivorship

**Meetings are held at Hazeldene Hall, 13 Junction Ave, Parktown, Johannesburg 9:30 for 10:00am,**

FREE ENTRY, Enquiries: [louise@mybreast.org.za](mailto:louise@mybreast.org.za) / 0860 283 343

Stay informed with The Breast Health Foundation:

Facebook: <https://www.facebook.com/BreastHealthFoundation/>

Twitter: <https://twitter.com/BreastBhf>

Instagram: <https://www.instagram.com/breasthealthfoundationsa/>

Website: <http://www.mybreast.org.za/>

***Bosom Buddies is a support initiative brought to you by The Breast Health Foundation.***

**WANT TO SUPPORT OR VOLUNTEER FOR  
BREAST HEALTH FOUNDATION?**

Check out their needs on ForGood at:

[www.forgood.co.za/cause/profile/the-breast-health-foundation](http://www.forgood.co.za/cause/profile/the-breast-health-foundation)

## Pricing competition threatens generics

In the past decade, generic competition allowed millions of patients access to medicines for key therapeutic areas, however the sustainability of the industry could be threatened by policies that exclusively focus on reducing prices thereby increasing the risk of medicine shortages.

Cost-cutting measures such as ad-hoc price cuts, external reference pricing, tendering and increased pressure from medical aids have all driven the price of generic medicines to untenably low levels, says Erik Roos, CEO of generics firm, Pharma Dynamics.

"This could force manufacturers and suppliers of generic medicines to withdraw from the market, thus hampering the supply of medicines. At issue isn't the competition which exist between multiple generic competitors entering the market, which naturally drives down the cost of medicines, but rather when legislators overspend on newer, higher priced innovative medicines and then - in an effort to balance the budget - try to further cut the cost of generic products.

### Boils down to cost

"Winning government tenders often boils down to cost, which forces suppliers of generic medication to push their prices as low as they can. This not only puts their business at risk, but the well-being of patients too, since they are then often reliant on a single manufacturer for a market, which is why we are seeing an increase in supply issues of essential medication, not only in South Africa, but all over the world. Globally we are witnessing medicine shortages as healthcare budgets continue to come under strain, primarily due to growing and ageing populations, an increased disease burden, especially with regards to non-communicable diseases (NCDs) and the introduction of new, high priced innovative medicines.

"South Africa's population has grown exponentially to 57-million in 2018 compared to 49-million 10 years ago. This represents a population growth of almost a million a year. As the population grows and ages, the need for medicine increases, while healthcare budgets and margins tighten evermore," says Roos.

Countries such as Romania and Portugal have implemented extreme policies by applying clawbacks (retrieving money, typically by taxation) once product sales reach a certain level, resulting in thousands of pharmaceutical products being withdrawn from the market.

According to the Stop Stockouts Project (SSP) – a civil society coalition that monitors medicine shortages in South Africa's public health facilities, among the worst affected drugs are antiretrovirals (ARVs) and TB treatments – upon which millions of patients rely. The North-West province has been battling dwindling supplies of ARVs and other essential medication since March this year.

The large pharmaceutical wholesalers in the country also confirmed a shortage of certain vaccines, while some blood products or biologics have also been out of stock for some time.

Roos says regulatory changes can also have a huge impact on the supply of medicines.

"Every change to a product or process must be detailed to and accepted by regulators. Regulatory demands vary, and as a result, costs have increased substantially over the last few years, even though the price of most generic products hasn't. These changes might be negligible for originators, but for marginally profitable generics, the impact is significant.

## No real price benefit for Gleevec generics

Generic drugs should tend to trigger big drops in the cost of their expensive, brand-name counterparts, but there's been only a small drop in the price of imatinib since a generic version was introduced to compete with Gleevec, according to a new study.

Not only did prices for imatinib remain high, but doctors were slow in starting to prescribe the generic version. Patients typically take imatinib daily for the rest of their lives, so the cost of treatment can be extremely high.

Gleevec is used to treat chronic myeloid leukemia. It cost nearly \$4,000 a bottle when it became available in 2001, and the price rose to \$10,000 a bottle by 2015. The introduction of the generic version was expected to significantly lower the cost of imatinib. However, the study found that nearly two years after the generic version became available, the cost of treatment with imatinib fell by only 10 percent.

SOURCE: Vanderbilt University School of Medicine, news release, May 7, 2018

"Regulatory amendments can include a change in how a certain class of product should be named in submissions right through to changes in the dosage of a product. The former can cause a delay of six months or longer in the launch of a pharmaceutical product and result in huge losses for the company. The latter could require all products with the same active pharmaceutical ingredient (API) to be removed from pharmacy shelves until the relevant changes to insert leaflets and packaging have been made, also causing a delay of several months.

"Policymakers also don't realise the extent to which pharmaceutical manufacturing (globally) has been consolidating over the last few years in order to remain profitable. Many of the big generic companies have announced closures of manufacturing facilities resulting in fewer plants producing a single product.

### Evergreening patents

"Addressing the unique challenges that generic pharmaceutical companies face is a priority and an important discussion that must take place between regulators, medical aids, consumers, manufacturers and suppliers.

"To further squeeze generic companies on the cost of already relatively inexpensive products isn't worth the risk of widespread shortages. Instead, proactive steps should be taken by government to make it easier for generic companies to get products to the market quicker, especially following the expiry of an original brand's 20-year patent term. This can only be achieved by reviewing SA's patent law, as currently it continues to protect and extend the monopolies of originator companies by allowing them to extend the period of exclusivity for no further advancement in the molecule. This practice is known as 'evergreening of patents' and keeps medicine prices high.

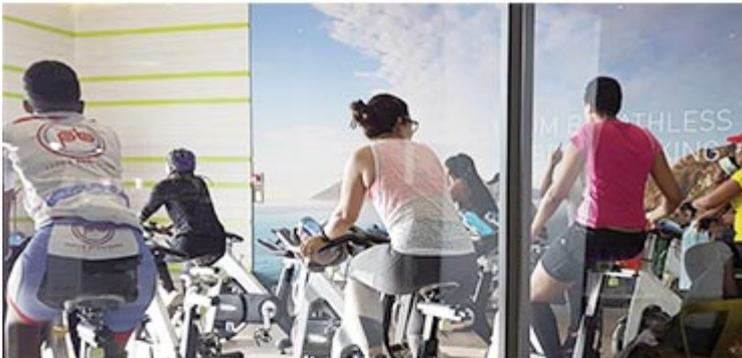
"Enabling more generic competition not only helps to reduce medicine prices, but allows greater access and improved public health. I don't know of any other industry that can offer a product at half the price as it was the day before. Generics have the ability to reduce the cost of medicine by up to 80% and play a vital role in the healthcare mix," says Roos.

*This article originally appeared on*  
<http://www.bizcommunity.com/Article/196/398/176583.html>

# CANSURVIVE IN A SPIN



*CanSurvive thanks GO Health Clubs in Sandton, Northview and Fairlands for joining us to promote cancer support.*



## BEWARE THE UNINTENDED CONSEQUENCES OF

# “Putting Patients First”

Putting patients first is a noble and effective rallying cry. In three words, it bluntly lays out a course to re-orient healthcare to its most basic and humanistic roots. It reassures that in spite of the pervasiveness of technology, regulations and measures, the principal purpose underlying all of health care is to provide care and reduce suffering. The refrain establishes for patients and their loved ones that they are not intruders in the world of healthcare, but integral partners in the effort to produce quality outcomes. At the same time, it encourages healthcare professionals - working in a field with staggering rates of burnout - that their principal motivations for entering a caring profession can still, indeed, be fulfilled.

The call to action to put patients first has galvanised healthcare systems around the world to develop structures and processes to make a respectful, personalised, responsive, convenient, compassionate patient experience the norm. This is person-centred care! But this spirit is utterly lost when putting patients first is misconstrued to mean that the top priority is customer (or in this case, patient) satisfaction. Achieving patient satisfaction at any cost is treacherous territory that could threaten quality of care, safety, employee engagement and employee well-being.

## “Putting Patients First” is not “The Customer is Always Right”

There can be unintended consequences to this rallying cry. A dark side emerges when “putting patients first” is misinterpreted as “the customer is always right.”

To be clear: putting patients first does not mean surrendering professional judgment to comply to the inappropriate demands or wishes of a patient, for instance someone insisting on a unnecessary or excessive test or treatment. Nor does it mean tolerating physically, emotionally or psychologically abusive behavior from patients or their loved ones, which is the focus area of this piece. For many staff drawn to the values of person-centred care, the exhortation to “put patients first” may imply they are expected to tolerate abusive or hostile behaviors from those they are trying to help in the name of person-centred care. This is a complete distortion of the concept.

## Differentiating challenging behaviors and unacceptable ones

First, it must be acknowledged that there could be a range of causes triggering an individual’s challenging behavior, including an underlying medical condition, reaction to medications, even intense anxiety or fear related to the hospitalization. In such cases when hostile or aggressive actions are brought on by a medical condition, empathy and providing treatment that minimises risk to self and others are required. It’s also a reality that these kinds of behaviors may, at times, be brought on by frustrations created by our own systems (or lack there-of). For instance, excessive waits, lack of information, conflicting information, repeated failures to really hear what an individual is saying, etc. In these instances, it is important to directly acknowledge the shortcomings and act swiftly to resolve them.

Here, however we shift the focus from challenging behaviors to unacceptable ones. Abusive behaviors is a wide-ranging term, and includes being spit on, kicked, grabbed, groped, scratched, degraded, threatened, or manipulated. Sadly, there are likely very few healthcare professionals who have not experienced at least one of these.

In fact, healthcare and other social assistance workers suffer injuries from workplace violence at a rate of more than four times that of private sector employees overall, according to the Bureau of Labor Statistics - this even when we know that instances of verbal abuse against healthcare workers are woefully under-reported.

This is why it is incumbent on healthcare organizations to:

Explicitly communicate that no staff should be expected to endure any sort of abuse or bullying behavior from patients and family members. It must be overtly stated that withstanding this sort of behavior is NOT representative of delivering superior person-centred care.

Provide clear strategies and supports that caregivers can apply in such a situation where there they feel threatened, demeaned, bullied and/or unsafe due to the behavior of patients or loved ones, including training in de-escalation techniques, emotional support and systems for calling in back-up support when needed.

## Ripple effects

Why is this level of clarity important? Withstanding abuse or bullying from one patient may result in a more satisfying experience for that one patient (though, frankly, even that is doubtful), but how does it affect the individual who was abused? How does it affect the rest of the patients he or she will interact with that day? How does it affect the rest of the staff who invariably will have seen or heard about the incident? The rallying cry of person-centred care is not “putting a patient first.” It is “putting patients first,” and patients is plural for good reason. We absolutely need to be aware of how the accommodations and exceptions made for one patient or family may create a ripple effect of negative consequences on others and the organizational culture at large.

To take it out of the realm of abusive behavior, consider how you would resolve a situation wherein one patient in a semi-private room is hard of hearing and insistent on watching television late into the night, much to the chagrin of his or her sleep-deprived roommate. This requires a balance between accommodating personal preferences and patient autonomy with appropriate limits. Perhaps you will provide the patient with head phones or maybe transfer them to a different room. This same level of common sense boundary setting must be applied in instances of staff bullying or abuse by patients and families.

## When helping others can hurt yourself

Realistically, though, applying this principle in such scenarios can be considerably more complicated. Most healthcare professionals opted into their profession out of a desire to help others. Many are caring and service-oriented by nature, with a deep personal conviction to reduce others’ suffering. In addition, many healthcare workers simply do not feel empowered to remove themselves from the care of a person in need.

Unfortunately, the “put patients first” rallying cry may even further erode a sense of agency. Individuals may feel that putting their own physical and/or psychological safety first is a personal failing or that they have betrayed the organization’s core values. In some cases, they may feel that their job security or reputation within the organization is at risk if they don’t “suck it up” and put the patient first at all costs.

## The organizational imperative

“First do no harm” must apply to the well-being of staff as well. If

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## Putting Patients First

(Continued from page 6)

caring for a patient puts a staff member at risk - physically, emotionally or psychologically - interventions must be introduced to protect the well-being of staff. These may include:

### Back-up systems so staff can remove themselves from the situation if need be.

Training for staff in de-escalation techniques and tactics for appropriately dealing with patients and loved ones who exhibit disruptive, hostile or abusive behavior.

Acceptable behavior agreements that staff can provide to patients exhibiting abusive behavior. These contracts explicitly outline the consequences should such behaviors persist, including in the most extreme cases, refusal to treat.

Support to address the emotional toll of such instances when they do occur.

### When it gets personal

This is all well and good, but what can be done in the moment when a caregiver finds themselves in the midst of an abusive interaction.

### What to do (and notdo) when dealing with an abusive patient or family member

Avoid arguing or defensiveness.

Avoid raising your voice and threats.

Avoid threatening body language (don't stand with arms crossed).

Calmly but firmly outline limits and boundaries.

Respect the individual's personal space, while also protecting your own.

Provide choices, if applicable.

If a patient or family member continues to be abusive after you've calmly and firmly told them their behavior is unacceptable, alert a supervisor.

### What to say when dealing with an abusive patient or family member

These statements will certainly not work for every person, every time, but may give you a starting point for de-escalating challenging behaviors:

"I hear you. Let's see if we can get this to a better place."

"I want to hear you so that I can help, but I can't do that if you are yelling/berating me."

### The bottom line

Particularly at a time when rates of burnout among healthcare professionals are staggering, it is imperative for organizations to not only provide reassurance to caregivers that their physical and psychological safety are paramount concerns, but also offer up concrete strategies and systems to preserve their well-being. The bottom line is this:

A caregiver putting his or her physical and/or psychological safety first is not a failing of the caregiver. Expecting caregivers to tolerate that sort of abuse or bullying is, however, a failure of a person- (not patient-) centred healthcare organization.

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**Pink Phoenix Cancer Foundation**

# TUTUS and Tekkies

## 5KM Fun Run/Walk

Don your pink tutu, and your tekies (or just your tekies) and bring your family to the Pink Phoenix Cancer Foundation Fun Run

**VENUE** : Umhlanga Promenade  
**DATE** : Sunday 17 June 2018  
**TIME** : 08H00 to 10H00  
**COST** : R100 (Adults), R50 (Kids U12), Under 2yrs Free

BOOK ONLINE (EFT AND PAYFAST) AT [www.pinkphoenix.co.za](http://www.pinkphoenix.co.za) (upcoming events)  
 OR EFT Please book before payment to Cathy Van Lill (082 488 9912)

**FNB** : The Pink Phoenix Cancer Foundation **BRANCH CODE** : 250108  
**ACC** : 62413684186 NPC Cheque **REFERENCE** : Tutus and "your name" eg Tutus John Smith

*Let's have a fit and fabulous day!*

Key Events  
 SEAN BAKER | PHOTOGRAPHY

# How to upgrade your gratitude practice

By Kira M. Newman

According to a new study, your gratitude journal could be more powerful if you also express that gratitude to others.

One of my New Year's resolutions this year is to keep a gratitude journal, because years of research predict the journal will make me happier. Each night I dutifully express my gratitude for friends, health, and coffee. But a new study suggests that I might want to do more than put pen to paper. I should thank people face to face who make my life better.

"Although gratitude is often depicted as other-oriented, in many cases it is never expressed to the other," write researchers from the University of Limerick. But what happens when we do express the gratitude that we're journaling about? According to their study, the practice becomes even more beneficial.

The researchers recruited nearly 200 participants (ages 18-84), who were split into three groups. One group wrote in a gratitude journal three nights a week for three weeks, focusing on positive social interactions or relationships they appreciated that day. Another group kept a similar journal, with a twist: At the end of each week, they thanked someone in their lives about something specific—Thanks for being such a good listener yesterday!—and then reflected on the person's response and their own feelings. A control group journaled about things that happened during the day.

Before the experiment, immediately after, and in a series of follow-ups, participants filled out surveys about their life satisfaction, positive and negative emotions, and depression during the previous month. They also rated how often they expressed gratitude in their relationships, and how grateful they felt overall.

Right after finishing three weeks of journaling, the gratitude-expressing group was faring the best: Their negative emotions decreased more than those in the other groups, and they also felt less depressed and more emotionally balanced than when they started.

"Other-oriented gratitude appears to be particularly effective in enhancing emotional well-being when this gratitude is outwardly expressed," the researchers conclude. In other words, says lead author Brenda O'Connell, "When you feel thankful for someone, actually thank them!"

One month later, both of the gratitude groups seemed to be doing equally well: Compared to the control group, they were still experiencing less negative emotion and a more positive balance of emotions, even though the experiment was long over.

Being instructed to express gratitude was particularly powerful for participants who came into the study with higher symptoms of depression. In their case, there was a direct link between how often they expressed gratitude in their relationships and how much more positive they felt one month after the experiment.

As we know from past research, expressing gratitude to someone makes a big impact—it can boost our happiness months later, make us see them more positively, and strengthen our relationship.

Surprisingly, neither of the gratitude-journaling practices seemed to help participants become more grateful in general, or to be more satisfied with their relationships or their lives. This may be because

they were already a fairly grateful bunch, the researchers speculate—but they don't know for sure. And three months after the experiment, the residual benefits of practicing gratitude seemed to have disappeared in both groups.

"Gratitude interventions can improve markers of well-being, [but] these effects are not always straightforward and sustainable," the researchers explain.

Their study is part of a new wave of gratitude research exploring not just if gratitude journals work, but how and when. To reap continued benefits, we probably need to practice gratitude continually—aiming to cultivate a more enduring attitude of gratitude.

I didn't stop my gratitude journal after three weeks, so hopefully it's still doing me good. Maybe I'll try sending thanks to more of my friends, family, and coworkers, too!

*This article originally appeared on*

*<https://greatergood.berkeley.edu>, the site for the online magazine of the Greater Good Science Centre at UC Berkeley.*

## What is neutropenia?

There are 1.6 million people diagnosed with cancer in the US each year. Of these, 650,000 receive chemotherapy. Did you know that 60,000 people a year are hospitalized for neutropenia, a common side effect of chemotherapy? One in fourteen die because of it.

Of the 650,000 receiving chemotherapy, 104,000 are not aware of neutropenia and 52,000 don't know that they should call their doctor at the first sign of fever.

Seven to twelve days after you receive a dose of chemotherapy, your body's white blood cell count drops significantly. This is when you are most at risk for infection. Called the nadir, it can last for as long as a week.

Hand washing is one of the most important strategies to use to stay healthy. But it's not just after using the bathroom that you should wash your hands. (See Hand washing 101)

Many people don't realize that you should wash your hands after petting your animals. Do not let your pet lick your mouth or any open wounds. Avoid being scratched by your pet. If you are cleaning up after your dog or cat, even with gloves on, you should wash your hands. When gardening in the spring, summer or fall, wear gloves and wash your hands afterwards.

Bathing every day is a must. Another recommendation is to stay away from crowds. Brush your teeth with a soft toothbrush and never share utensils or toothbrushes with others.

If you have chills, sweats or a fever, you need to seek medical attention. A fever is 100.4 degrees for an hour or a one time 101 degrees. Contact your physician, even if this occurs in the middle of the night.

Other signs of infection include soreness or swelling around a wounds or ports, diarrhea and vomiting, stiff neck, sore throat, pain on urination.

Sepsis is a serious and sometimes fatal condition caused by infection. People with neutropenia are at risk of sepsis.

[https://medivizor.com/blog/2018/01/21/neutropenia/?utm\\_campaign=website&utm\\_source=sendgrid.com&utm\\_medium=email](https://medivizor.com/blog/2018/01/21/neutropenia/?utm_campaign=website&utm_source=sendgrid.com&utm_medium=email)

## The crushing cost of caring

When we love someone, we want for them the best. We fight for and with them. We push them to attack disease. Is it possible that our very love can cause suffering? Can we mistake our eternal love for each other with a futile fight for immortality? Does our caring crush the ones for whom we care?

At any moment almost every intensive care unit in the country has several patients for whom complex expensive care is being administered which will fail. This massive national financial weight threatens to drag all of us down. The tragic waste cannot continue. Still, for me, money is not really the problem. The issue is rather one of horrible human suffering.

We have developed highly sophisticated health care, which is out of balance with an immature social system. There is no limit to the medical torture that we can do to ourselves, and loved ones. However, we have not yet developed the educational, emotional and cultural maturity to know when to stop. It is like giving a 10 year old the keys to a Ferrari. He probably can reach the pedals, but on the open road, he is likely to wreak havoc. With all our wealth and scientific innovation, we often lack the ability to put potential disaster in perspective.

This immaturity is both societal and personal. First, the science of medicine continues to change so fast that we cannot assimilate it into our worldview. Do you really understand the affects of \$1000

## CanSurvive CANCER SUPPORT

### Let's talk about cancer!

Join us at a **CanSurvive Cancer Support** group meeting for an interesting and informative talk, refreshments and a chance to chat with other patients and survivors .

#### Upcoming meetings:

**CHARLOTTE MAXEKE Radiation Department,  
Level P4 - 23 May**

**CHARLOTTE MAXEKE Radiation Department,  
Level P4 - 6 June**

**PARKTOWN Hazeldene Hall (opposite Netcare  
Parklane Hospital) - 9 June 09:00**

**PINEHAVEN, WEST RAND  
16 June, Netcare Pinehaven Hospital**

**Enquiries: 062 275 6193**

**or email [cansurvive@icon.co.za](mailto:cansurvive@icon.co.za)**

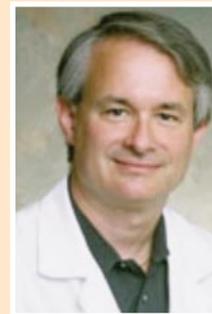
**[www.cansurvive.co.za](http://www.cansurvive.co.za)**

**[www.facebook.com/cansurviveSA](https://www.facebook.com/cansurviveSA)**

The Groups are free and open to any survivor, patient or caregiver.

### James C. Salwitz, MD

Dr. Salwitz is a Clinical Professor at Robert Wood Johnson Medical School. He lectures frequently in the community on topics related to Hospice and Palliative Care and has received numerous honours and awards, including the Physicians Leadership Award in Palliative Care. His blog, Sunrise Rounds, can be found at <http://sunriserounds.com>



whole gene sequencing, Proton Beam Radiation, or \$70,000 automatic defibrillators? How about universal electronic medical records mixed with social media? Chemotherapy which extends life for \$45,000 a month? I do not and my head spins as I try to find solid ground.

Second, and central to the problem, is that as a society we lack experience with disease and death. For the past 50 years, sick patients have been isolated in hospitals and nursing homes. Little cultural experience with illness remains. For thousands of years we taught our children about this difficult part of life by taking care of the sick in our homes. Now, grandma is shuffled off to an institution and we teach five year olds about death by buying them a goldfish. What happens when you die? They flush you down the toilet.

The imbalance of rapidly evolving technology with lagging cultural health experience results in false hope and needless suffering. Because we have not personally seen the horror that is possible, we push ourselves and our loved ones beyond compassion's line. We demand that science torture those we cherish, because we have not been there before.

A remarkable contrast occurs when a physician encounters a family who has developed the kind of medical maturity to provide balance. The family listens and discusses what the doctors recommend. They allow reasonable interventions. Nonetheless, they are prone to statements such as, "I do not want her to suffer and end up on a machine like my father did." Experience teaching and talking.

If we are going to protect ourselves and the ones we love, we must accept that life is finite, but that the possibilities for torture are not. Patients and families need to have direct and honest conversations with their doctors about what can truly be achieved. We must differentiate the false "hope" that we will live forever, from the real "Hope" that we can live our lives better, however long that life may last. A mature health care system will provide the best in technology held gently in the hands of mercy.

### Palliative care training

Throughout the year Hospice Wits host various short courses: the 5-day Introduction to Palliative Care, 2,5-Day Grief, Loss and Bereavement Workshop, 5-day

Introduction to Paediatric Palliative Care, 3-day Non-Clinical Palliative Care, 3-Day Physical Assessment Workshop, as well as other client specific courses which they present on request.

**For further details phone 011 483 9100 or email [training@hospicewits.co.za](mailto:training@hospicewits.co.za).**



**Hospice Wits**

*no end to caring*

# CALENDAR

## May 2018

- 19 CanSurvive West Rand Group, Pinehaven Hospital, Krugersdorp. 09:00
- 19 Wings of Hope, German International School, Parktown. 9:30 for 10.00
- 19 Bosom Buddies, Hazeldene Hall, Parktown, 9:30 for 10:00

## June 2018

- 4 **World Cancer Survivors Day**
- 6 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 9 CanSurvive Cancer Support Parktown Group, Hazeldene Hall,
- 9 Bosom Buddies, Hazeldene Hall, Parktown, 9:30 for 10:00
- 16 CanSurvive West Rand Group, Pinehaven Hospital, Krugersdorp. 09:00
- 20 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 21 CANSA Pretoria support group, 32 Lys Str., Rietfontein
- 30 Wings of Hope, German International School, Parktown. 9:30 for 10.00 – Birthday celebration.

## July 2018

- 4 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 10 Reach for Recovery West, Kruinpark Restaurant 13h30 for 14h00
- 14 Reach for Recovery (R4R) : Johannesburg Group. Meetings: Lifeline offices, 2 The Avenue, Cnr Henrietta Street, Norwood 14:45 for 14:00
- 14 CanSurvive Cancer Support Parktown Group, Hazeldene Hall, Parktown 9:00
- 18 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 19 CANSA Pretoria support group, 32 Lys Str., Rietfontein
- 21 CanSurvive West Rand Group, Pinehaven Hospital, Krugersdorp. 09:00
- 28 Bosom Buddies, Hazeldene Hall, Parktown, 9:30 for 10:00

## August 2018

- 1 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 11 CanSurvive Cancer Support Parktown Group, Hazeldene Hall, Parktown 9:00
- 11 Wings of Hope, German International School, Parktown. 9:30 for 10.00
- 15 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 16 CANSA Pretoria support group, 32 Lys Str., Rietfontein
- 18 CanSurvive West Rand Group, Pinehaven Hospital, Krugersdorp. 09:00

## September 2018

- 5 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 8 CanSurvive Cancer Support Parktown Group, Hazeldene Hall, Parktown 9:00
- 8 Bosom Buddies, Hazeldene Hall, Parktown, 9:30 for 10:00
- 11 Reach for Recovery West Rand, Birthday Bash - Venue to be announced

## CONTACT DETAILS

CanSurvive Cancer Support  
Parktown and West Rand Group ;  
Contact: 062 275 6193 or cansurvive@icon.co.za

Charlotte Maxeke Group: Contact Duke Mkhize 0828522432  
Jabulani Group: Contact Sister Bongwiwe Nkosi: 0835760622

CancerCareSupport Group, 4th Floor, Rondebosch Medical Centre. Contact: linda.greeff@cancercare.co.za or phone 0219443700 for more info

CancerCare Cape Gate Support group: 10h00-12h00 in the Boardroom, Cape Gate Oncology Centre. |  
Contact: Caron Caron Majewski, 021 9443800

CancerCare Outeniqua, George Support Group. Contact: Engela van der Merwe, 044 8840705,  
engela.vandermerwe@cancercare.co.za

Cancersupport@centurion: Marianne Ambrose 012 677 8271(office) or Henriette Brown 072 8065728

Bosom Buddies: 011 482 9492 or 0860 283 343,  
louise@mybreast.org.za  
Venue: Hazeldene Hall, 13 Junction Ave, Parktown, Johannesburg. www.bosombuddies.org.za.

More Balls than Most: febe@pinkdrive.co.za,  
www.pinkdrive.co.za, 011 998 8022

PinkDrive: www.pinkdrive.co.za, Johannesburg:  
febe@pinkdrive.co.za, 011 998 8022;  
Durban: Janice Benecke: 031 201 0074/082 557 3079  
janice@pinkdrive.co.za

Cape Town: Ebrahim Osman: 021 697 5650  
ebrahim@pinkdrive.co.za

Prostate & Male Cancer Support Action Group,  
MediClinicConstantiaberg. Contact Can-Sir: 079 315 8627 or  
Linda Greeff: linda.greeff@cancercare.co.za, phone 0219443700

Wings of Hope Breast Cancer Support Group  
Contact wingsofhopecancersa@gmail.com.

CHOC: Childhood Cancer Foundation SA; Head Office:  
086 111 3500; headoffice@choc.org.za; www.choc.org.za

CANSA National Office: Toll-free 0800 226622

Netcare Clinton Support Group 10:00 Netcare Clinton Oncology Centre, 62 Clinton Rd. New Redruth. Alberton. Second Friday each month.

CANSA Pretoria: Contact Miemie du Plessis 012 361 4132 or  
082 468 1521; Sr Ros Lorentz 012 329 3036 or 082 578 0578

Reach for Recovery (R4R) : Johannesburg Group, 011 869 1499  
or 072 7633901. Meetings: Lifeline offices, 2 The Avenue, Cnr  
Henrietta Street, Norwood

Reach for Recovery (R4R) : West Rand Group. Contact Sandra on  
083 897 0221.

Reach for Recovery (R4R) Pretoria Group: 082 212 9933

Reach for recovery, Cape Peninsula, 021 689 5347 or  
0833061941 CANSA offices at 37A Main Road, MOWBRAY  
starting at 10:00

Reach for Recovery: Durban, Jenny Caldwell, 072 248 0008.t

Reach for Recovery: Harare, Zimbabwe contact 707659.

Breast Best Friend Zimbabwe, e-mail bbzfim@gmailcom

Cancer Centre - Harare: 60 Livingstone Avenue, Harare  
Tel: 707673 / 705522 / 707444 Fax: 732676 E-mail:  
cancer@mweb.co.zw www.cancerhrc.co.zw

# News in brief

## Aspen boosts local medicine manufacture

Pharmaceutical giant Aspen has invested almost R1-billion in the high containment unit at its Port Elizabeth site, which was opened this month. Stephen Saad, Aspen Group Chief Executive, said that the facility would use “complex technologies” to make products that are usually used to treat rare conditions.

The first medicines to be made will be three late-stage cancer medicines – Alkeran, Leukeran and Purinethol; Imuran, which prevents people from rejecting organs after liver and kidney transplants and Benzotropine, which is used to treat Parkinson’s disease. It will be able to manufacture 3,6 million tablets a year at full capacity.

“Aspen’s expansion into the high potency facility will enable the manufacture of products not previously produced locally and also add to the export capacity of Aspen contributing to the overall growth of the pharmaceutical sector,” said Trade and Industry Minister Rob Davies, who opened the facility.

“Around 95% of these new products are to be exported with target markets in Latin America, Europe, Asia and Africa,” added Davies.

The new facility will employ an additional 500 people, mostly in highly specialised positions. Aspen is also setting up a training facility to enable staff to get nationally accredited qualifications in pharmaceutical manufacturing.

<https://www.health-e.org.za/2018/05/08/aspen-boosts-local-medicine-manufacture/>

## A dose of empathy may support patients in pain

Research published recently in the Journal of the Royal Society of Medicine suggests that empathic, positive messages from doctors may be of small benefit to patients suffering from pain, and improve their satisfaction about the care received.

The study, which combined data from 28 clinical trials involving over 6,000 patients, adds weight to the argument that patient outcomes can be improved when doctors enhance how they express empathy and create positive expectations of benefit.

These trials included data from consultations on a wide range of clinical conditions including pain, asthma, irritable bowel syndrome, osteoarthritis and recovery after surgery. The researchers also reviewed the effects of positive communication on quality-of-life and patient satisfaction, based on reports from patients in these trials.

The most significant benefits were seen when doctors communicated positive and reassuring messages to patients with the intention of improving a patient’s expectations. In these studies, patients reported to be 5% to 20% more satisfied with their treatment compared to those who received standard care, and reported slightly improved quality-of-life.

Lead author Dr Jeremy Howick, Director of Oxford University’s Oxford Empathy Programme, said: “Doctors can do much more than prescribe drugs and other treatments to help patients suffering from mild to moderate pain. Based on the clinical trials we reviewed, the potential for these kinds of interventions to help many – perhaps

most – patients in general practice appears to be promising. Whether patients need drugs or not, adding a dose of empathy may be likely to reduce their pain and lower their anxiety.”

## Radiotherapy offers new treatment option for liver cancer

A novel technique that delivers high doses of radiation to tumours while sparing the surrounding normal tissue shows promise as a curative treatment option for patients with early-stage liver cancer, according to a recent study.

Curative treatment options for early-stage hepatocellular carcinoma (HCC), the most common type of liver cancer, include surgery, liver transplantation and radiofrequency ablation. However, many patients are not candidates for these therapies due to the presence of other conditions. In addition, these treatments carry significant costs and potential complications.

Radiation segmentectomy (RS) is a minimally invasive option that uses the radioisotope yttrium-90 (Y90) to destroy tumours. The isotope is embedded into tiny beads that are delivered through a catheter into a blood vessel in the liver. They then travel to the site of the tumour, where they come to rest and deliver their radioactive effect while sparing much of the surrounding healthy tissue.

The procedure’s name derives from the fact that surgeons divide the liver into a number of segments. Using an imaging approach called cone beam CT, interventional radiologists gain a detailed view of the complex liver vasculature and can focus delivery of the Y90 to the relevant segment.

Based on one criteria, 90 percent of patients showed positive response to the therapy, of which 59 percent showed complete response. Based on a second criteria, 71 percent achieved positive response, of which 16 percent achieved complete response.

[rhttps://www.eurekalert.org/pub\\_releases/2018-04/rson-ron041718.php](https://www.eurekalert.org/pub_releases/2018-04/rson-ron041718.php)

## Tiny differences in patient’s position could increase survival chances

Very small differences in the way a patient lies during radiotherapy treatment for lung or oesophageal cancer can have an impact on how likely they are to survive, according to research presented at the European Society for Radiotherapy and Oncology ESTRO 37 conference. The finding suggests that survival could be improved by tightening up treatment guidelines to ensure patients are positioned more accurately.

Radiotherapy plays an important role in cancer care in, amongst others, hard to treat tumours such as lung and oesophageal cancer. However, it can cause side-effects and previous research shows that radiotherapy to the chest can have negative long-term effects on the heart, for example, increasing the risk of heart disease.

When planning radiotherapy treatment, cancer specialists create a CT image of their patient. This reveals the exact position and size of the tumour within the body. At each subsequent treatment, another image is created and used to check that the patient and, therefore, the tumour is in the same position, within a certain threshold, before the treatment is delivered.

Corinne Johnson, a medical physics PhD student, and her colleagues studied a group of 780 patients with non-small cell lung cancer who were treated with radiotherapy. For each treatment, patients were positioned on the treatment machine and an image was taken to

confirm that they lay within 5mm of their original position. They used the data from these images to gauge how accurately the radiotherapy dose was delivered over the course of treatment, and whether it was shifted slightly closer or slightly further away from the patient's heart.

When they compared these data with how likely patients were to survive, they found that patients with slight shifts towards their hearts were around 30 per cent more likely to die than those with similar sized shifts away from their hearts.

When they repeated the research with a group of 177 oesophageal cancer patients, they found an even greater difference of around 50 per cent. In both groups the pattern of survival remained even when researchers took other factors such as the patient's age into account.

[https://eurekalert.org/pub\\_releases/2018-04/esfr-ctd041918.php](https://eurekalert.org/pub_releases/2018-04/esfr-ctd041918.php)

## Cancer patients face long waiting times at Charlotte Maxeke Hospital

Cancer patients have been subjected to longer waiting times at the Charlotte Maxeke Hospital according to Jack Bloom, the Democratic Alliance's (DA's) shadow health MEC in Gauteng, who said five machines had broken down at the hospital since January last year. Bloom said the revelation was made by Gauteng Health MEC Gwen Ramokgopa in a written reply to his questions.

"According to Ramokgopa, three of the linear accelerator machines broke down, two of which have been fixed and the third condemned for replacement. A Cobalt machine failed but is now functional, and an Orthovoltage machine that broke is not due for replacement until 2025," Bloom said.

"Ramokgopa says that 'the breakdown of machines led to increase waiting times, however the hospital prioritises repairs and maintenance'. Furthermore, 'there is a need for a replacement plan for the machines which are estimated to be 14 years old ... a strategic equipment replacement plan for five years has been developed.'

Bloom said he was also concerned that three out of nine consultant posts at the cancer unit were vacant. "I have received complaints from cancer patients about delays in treatment. It is unacceptable to give such a vague answer, which I suspect is because long waiting times are worsening the survival prospects of cancer patients."

## Is whole-brain radiation still best for brain metastases from small-cell lung cancer?

A recent study from investigators at the University of Colorado Cancer Centre challenges the use of whole-brain radiation for all small-cell lung cancer patients with brain metastases. The study, compared the outcomes of 5,752 small-cell lung cancer patients

who received whole-brain radiation therapy (WBRT) with those of 200 patients who received stereotactic radiosurgery (SRS), finding that the median overall survival was actually longer with SRS (10.8 months with SRS versus 7.1 months with WBRT).

"One of the historic reservations regarding the use of SRS in small-cell lung cancer has been the concern that, by omitting WBRT, a patient could be at a higher risk of a diffuse progression of brain metastases, and that this could negatively affect prognosis. This study begins to address that concern by showing encouraging survival outcomes with SRS alone," says Chad Rusthoven, MD, assistant professor in Radiation Oncology at the University of Colorado Cancer Centre, the paper's senior author.

<https://tinyurl.com/y8fbpucu>

## A new bra made for breast-cancer patients is helping mitigate the side-effects of radiation

While breast-cancer survival rates are increasing, chemotherapy and radiation can cause side-effects such as burns, inflammation and dermatitis for some women.

Those with large or pendulous breasts can suffer severe burns as their breast creates a fold on their chest during treatment, sometimes causing peeling, bleeding and infection.

"It creates what we call a bolus effect, so the radiation dose is higher," said Suzanne Rossel, a radiation oncology technologist at the McGill University Health Centre and one of the creators of the Rad.Onc.Bra.

She said the bra lifts up the breast, "positioning it every day the same way," which can reduce or, in some cases, completely prevent the radiation burns.

## Malpractice claims are undermining SA's health system

The increasing number of medical malpractice litigation claims in South Africa has been described as an "explosion" by Health Minister Dr Aaron Motsoaledi, who warns that the compassion-based practice of medicine is being replaced by defensive medicine and mistrust.

Provincial health departments are struggling with their obligation to provide healthcare services, while still having to pay out the billions in claims against them. In the private sector, medical specialists are being faced with exorbitant medical protection insurance premiums, causing healthcare costs to rise and impacting on practices.

Last year it was reported that the Gauteng Health Department alone had paid out at least R1 billion in lawsuits since January 2015, while the Eastern Cape is facing pay outs of R14 billion.

<http://ehealthnews.co.za/malpractice-claims-undermining-sas-health-system/>

## Adjuvant radiation may improve survival in head and neck cancer

Adult patients with head and neck sarcoma with microscopic and macroscopic positive surgical margins may benefit from adjuvant radiotherapy, according to findings presented at the 2018 American Head & Neck Society Annual Meeting in National Harbor, Maryland.

Positive margins post-surgery are associated with poor survival among patients with head and neck sarcoma, but the benefit of

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adjuvant radiotherapy was previously unestablished.

For this study, researchers evaluated the outcomes of 5950 adult patients who underwent surgery for head and neck sarcoma between 2004 and 2013. Of 1142 cases of positive surgical margins, 839 and 303 were microscopic and macroscopic, respectively. Overall, 356 patients were treated at community-based cancer programmes and 969 at academic or research programmes.

<https://www.cancertherapyadvisor.com/ahns-2018/head-neck>

## Study shows a new approach to treating patients with stage IV Wilms tumour

A study showing significantly improved survival rates for patients with stage IV Wilms tumours with lung metastases was recently published in the Journal of Clinical Oncology. The outcomes of the study, "Treatment of Stage IV Favorable Histology Wilms Tumour With Lung Metastases: A Report From the Children's Oncology Group AREN0533 Study", will be a game-changer in treating Wilms tumour and reduce the need for radiation - and the long-term risks associated with it - in nearly half of patients whose cancer has spread to the lung. The study was led by Jeffrey Dome, M.D., Ph.D., vice president for the Centre for Cancer and Blood Disorders at Children's National Health System.

<https://tinyurl.com/yd3duhe9>

## Carbohydrates' impact on head and neck cancers

Consuming high amounts of carbohydrates and various forms of sugar during the year prior to treatment for head and neck cancer may increase patients' risks of cancer recurrence and mortality, a new study reports.

However, eating moderate amounts of fats and starchy foods such as whole grains, potatoes and legumes after treatment could have protective benefits, reducing patients' risks of disease recurrence and death, said lead author Anna E. Arthur, a professor of food science and human nutrition at the University of Illinois.

In the study, researchers tracked the pre- and post-treatment diets and health outcomes of more than 400 cancer patients.

<https://tinyurl.com/ychnazvk>

## Alpha particles treat deeper into solid tumours

Alpha particles are a powerful cancer-killing tool, directly damaging tumour cell DNA regardless of the level of oxygenation or cell cycle stage. The downside of alpha particles is their extremely short range (40-90 µm) in tissue. Now, nge limit and showcased its technology at the recent ESTRO 37 congress in Barcelona.

The company's Alpha DaRT (diffusing alpha-emitters radiation therapy), invented by Itzhak Kelson and Yona Keisari from Tel Aviv University, is based around a radioactive seed containing 224Ra atoms. The seed is injected into a solid tumour and as it decays, it continually releases short-lived daughter atoms (220Rn, 216Po, 212Bi and 212Po), which are also alpha emitters. These atoms diffuse into the tumour, where they emit high-energy alpha particles that destroy tumour tissue. This approach increases the treatment range to a radius of several millimetres.

"Instead of directly irradiating the tumour, 224Ra decays and pushes daughters into the tumour. These are alpha emitters, which start

to diffuse and decay again," explained Amnon Gat, chief operating officer at Alpha Tau. "This enables clinical use of alpha for tumour destruction."

The 224Ra atoms are fixed onto the seed, so they don't diffuse into tissue themselves. The daughter atoms diffuse well in the tumour but hardly in healthy tissue, making the treatment highly conformal with no systemic side effects. Alpha radiation also has a high relative biological effectiveness, so less dose is required to induce damage. Another advantage is that because alpha particles are not impacted by oxygen level, Alpha DaRT can treat hypoxic tumours that are resistant to other type of radiation.

<https://tinyurl.com/yb6w3gzd>

## The continent's first genomics centre paves the way for Afrocentric medicine

When it opens its doors in mid-2018, the African Genomics Centre - a first for the continent - will be capable of conducting large-scale studies on whole genome sequencing.

The centre will also enable South African scientists to overcome limitations in local bioinformatics capacity. This is a big data initiative that requires robust ability to work with huge sets of data to create and sustain bioinformatics pipelines and local databases on population genetics.

In addition, the South African Medical Research Council (SAMRC) has cemented its collaboration with the Beijing Genomics Institute (BGI) through the signing of a formal agreement that guarantees an exciting future for this state-of-the-art research facility. BGI is at the forefront of the global scientific progress on genetic science and DNA sequencing, while South Africa has identified an opportunity, through this partnership, to build the country's capacity for whole human genome sequencing.

"The development propels South Africa into a new era of medical research and means that we join a small, but growing, group of countries that are pioneering this type of innovation," says Professor Glenda Gray, president of the SAMRC.

[http://www.bizcommunity.com/Article/196/323/173641.html#top\\_story](http://www.bizcommunity.com/Article/196/323/173641.html#top_story)

## New method to detect breast cancer with up to 95% accuracy

Israeli scientists at Ben-Gurion University of the Negev and Soroka University Medical Centre in Beersheba announced that they have developed a new non-invasive method to detect early breast cancer more accurately, using commercially available breath and urine tests.

For the study, breath samples were collected from 48 breast cancer patients, and 45 healthy women who served as a control group. Urine samples were taken from 37 patients diagnosed with breast cancer based on physical or mammography tests prior to any surgery, as well as from 36 healthy women.

"We've now shown that inexpensive, commercial electronic noses are sufficient for classifying cancer patients at early stages," said Prof. Zeiri.

"With further study, it may also be possible to analyze exhaled breath and urine samples to identify other cancer types, as well," he said.

<https://tinyurl.com/yayrmmxh>