Oxygen therapy saves life
MAY TAKE LIFE AS WELL

PROF M KARIM KHAN

Oxygen is a drug, and it is being used regularly to treat patients everywhere. In general, any patient comes with Acute Asthma, Respiratory distress, Heart failure, Severe pneumonia, Bronchiolitis, Myocardial infarction, Diabetic ketoacidosis, Status Epilepsy, acute poisoning etc., we first give oxygen therapy by cannula or mask and it helps a lot to the patients to make their breath easier and spontaneously they feel better.

We all became familiar with the pulse oximeter and its use. With this simple instrument, we can measure our oxygen saturation instantly.

During the last COVID-19 episode, we learned the value of oxygen. Unfortunately, there was a crisis of oxygen worldwide in the COVID-19 pandemic situation. In Bangladesh, India and elsewhere, many COVID-19 patients died because of oxygen scarcity.

The air we breathe is about 78% nitrogen, 21% oxygen and 1% other gases, including carbon dioxide. But the concentration of medical oxygen in a cylinder is around 95-99%. So, while giving oxygen by cannula or mask, it mix-up with air and attention comes down to about 95-96%. Oxygen can be given to a patient by cannula, mask, headbox, high flow nasal cannula and by the ventilator.

Every drug has some toxicity and oxygen therapy also has much toxicity if not given properly. If oxygen is provided for a prolonged time in a high concentration may damage the lungs, retina, may produce encephalopathy and subsequently affect other organs like the liver, kidney, heart etc. and eventually may lead to death.

It may cause alveolar damage, collapse of lungs and breathing difficulty in the lungs. There may be retinal detachment, especially in preterm low birth weight newborns may cause blindness, which we call Retinopathy of prematurity (ROP). There may be convulsion and impaired consciousness in the central nervous system affection. There may be hemolysis, acute kidney injury and hepatocellular damage. Sometimes the death may occur. So, oxygen saves a life, but indiscriminate use may cause death.

We all became familiar with the pulse oximeter and its use. With this simple instrument, we can measure our oxygen saturation instantly. The normal value is 90-100. But less than 90 indicates there is less oxygen in the blood, so oxygen is to be given. It can also be measured by arterial blood gas analysis, usually done in ICU patients. So to avoid oxygen toxicity, oxygen is to be delivered, in the right amount, in the right indication and in the right duration in the right way by the right person.

Be happy and healthy now and always.

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Don't forget leprosy

The Coronavirus pandemic's social and economic disruptions have been especially hard on leprosy patients and their families, many of whom were already vulnerable. Government-imposed restrictions have hampered their access to treatment and care, deprived them of employment possibilities, and aggravated the already dire conditions in their neglected areas.

In August 2021, a campaign named "Don't forget leprosy" was started. The campaign attempts to put leprosy in the spotlight during the COVID-19 outbreak and not ignore the disease's victims. The World Health Organisation (WHO) reported in September 2021 that new cases fell 37% from the previous year. However, the pandemic has interrupted leprosy control methods in several nations, including case detection and treatment. These programmes must continue since delays in detection and treatment might cause irreparable physical disability. That is why it is crucial seeking government and medical assistance for the "Don't forget leprosy" campaign.

Leprosy is an infectious illness caused by the bacteria *M. leprae*. But, even if exposed to leprosy bacilli, most people will not get the illness. What makes leprosy so challenging is the prejudice that comes with it. If we can tackle the leprosy discrimination issue, we can solve all human rights issues globally.

What can ginger really do for you?

Ginger has many health benefits if taken regularly once. The following are the advantage of having ginger regularly:

1. Fights germs-Certain chemical compounds in fresh ginger help halt the growth of bacteria like *E. coli* and shigella.

2. Active compounds in ginger keep oral bacteria from growing.

3. Ginger may work by breaking up and getting rid of built-up gas in your intestines and calms nausea.

4. Ginger may tame muscle soreness over time.

5. Ginger is an anti-inflammatory, which means it reduces swelling - especially for rheumatoid arthritis and osteoarthritis.

6. Bioactive molecules in ginger may slow down the growth of some cancers.

7. Ginger may help your body use insulin better and could help improve blood sugar levels.

8. Ginger helps to ease period cycle in women.

9. A daily dose of ginger may help battle your "bad" or LDL cholesterol levels.

10. Ginger is loaded with antioxidants; it promotes healthy ageing.

11. Ginger before meals may relieve indigestion.

It is better to be healthy in a natural way.

HEALTH BULLETIN

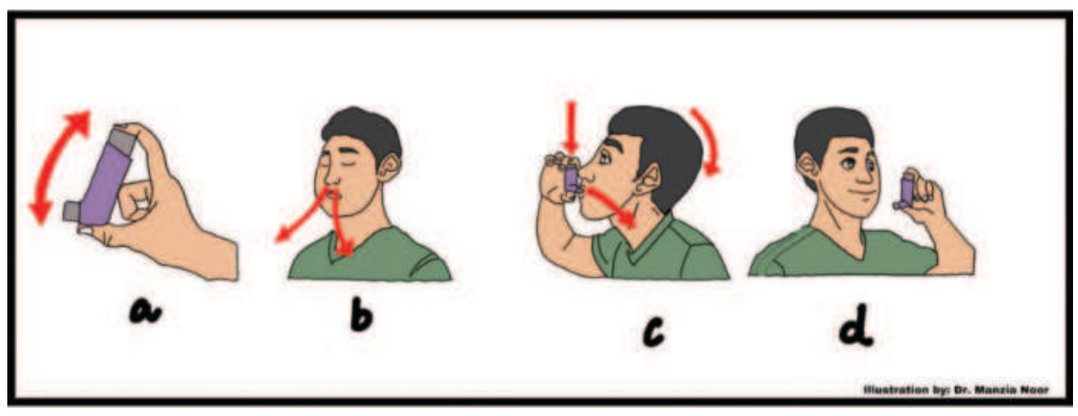
Global dementia cases set to triple by 2050

The first comprehensive analysis published in The Lancet forecasts dementia prevalence in 195 countries and territories and examines the impact of expected trends in exposure to four important risk factors—smoking, obesity, high blood sugar, and low education.

By 2050, 153 million people are expected to be living with dementia worldwide, up from 57 million in 2019, largely due to population growth and population ageing. Dementia cases will rise in every country, with the smallest estimated increases in the high-income Asia Pacific (53%) and western Europe (74%), and the largest growth in north Africa and the Middle East (367%) and eastern sub-Saharan Africa (357%).

However, experts project that improved access to education could lead to 6 million fewer cases of dementia worldwide by 2050. But they caution that this decrease would be offset by a projected 7 million additional dementia cases linked to projected rates of obesity, high blood sugar, and smoking.

Authors call for more aggressive prevention efforts to reduce dementia risk through lifestyle factors, such as education, diet, and exercise, and by expanding much-needed health and social care resources.



Optimise your inhaler technique this winter

DR MANZIA NOOR

Winter can be particularly difficult for asthma patients. Cold air might cause your airways to narrow causing shortness of breath and chest tightness. Refresh your memory on how to use your asthma inhalers properly to get rapid and substantial relief, by the following steps:

1. Priming your inhaler: This is only done when you first use a new inhaler or have not used it in a while (the duration could vary form 3 days to 28 days according to the brand of inhaler). The priming instructions vary by inhaler type. So, read the instructions on the information booklet that came with your inhaler. Priming is done by shaking the inhaler and spraying it into the air away from your face a few times.

Read the instructions on the information booklet that came with your inhaler.

2. Stand up or sit straight. This allows your lungs to fully breathe in and out.

3. Remove the protective cap from the mouth piece.

4. Hold the inhaler with your thumb at the base and index finger on the canister. (a)

5. Shake the inhaler in the upwards and downwards direction. This facilitates the drug to mix well with the propellent present inside the canister. (a)

6. Breathe out fully. This will create more space in the lungs for the next breath in to allow longer inhalation off the drug. (b)

7. Place the mouthpiece in your mouth between your teeth and above your tongue and seal your lips tightly around it to ensure no medication escape into the air. (c)

8. Incline your head backwards. This will minimise the deposition of the drug at the back of your mouth and throat. (c)

9. Begin a slow deep inhalation and simultaneously push down the canister while you continue to inhale. (c)

10. Remove the inhaler from your mouth carefully. (d)

11. Hold your breath for 10 seconds or as long as it is comfortable. (d)

12. Breathe out gently. (d)

13. If you are instructed to take another puff, repeat the process again after 30 to 60 seconds. Do not forget to shake the inhaler before every puff.

Now that you mastered the technique, you can go on to help others optimise their inhaler use.

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