

Pre-hospital care at road traffic accidents

STAR HEALTH DESK

When world's first road traffic death was recorded in 1896, everybody concerned at that time reported to have said, "This must never happen again". More than a century later, 1.2 million people are killed on roads every year and up to 50 million more are injured.

Road Traffic accident (RTA) ranks as the 11th leading cause of death and accounts for 2.1 percent of all deaths globally. It is the second leading cause of death among people aged 5-29 years. RTA injuries are becoming the third largest contributor to the global burden of diseases. Although there is no clear cut statistics of the number of deaths and injuries on our roads, experts say that it is increasing.

It is well established fact that accident victims who are brought to hospitals and receive initial medical care within one hour, chances of survival (even with disabilities) are much higher. This is why the first hour following injury is called the golden hour.

Majority of us are not aware of the significance of the golden hour. The scenario at the site of accidents is chaotic, transportation is

tardy because of heterogeneous and un-disciplined traffic. Over crowding and lack of standardised protocols are some of the major factors in delaying proper management. Pre-hospital care is vital to reduce the morbidity and mortality of the injured people. We can prevent the unnecessary deaths and disabilities to a large extent by giving pre-hospital care.

When attending an accident victim, check that the scene of the accident is safe. Your personal safety is paramount or you may add to the problem rather than contributing to the solution. If you have access to high visibility clothing, wear it.

Assess the situation

If there are many people injured, triage will be necessary to order priority. Triage is a matter of putting demands in order of priority. It is used to divide the injured into 3 colour-coded groups:

- Immediate colour-code RED, will die in a few minutes without treatment, e.g. obstructed airway, tension pneumothorax etc. so it needs immediate treatment.

- Urgent YELLOW, may die in an hour or two without treatment, e.g. severe fluid and blood loss.



- Delayed GREEN, can wait, e.g. minor fractures.

Triage is a dynamic process. If someone deteriorates suddenly this will change the assessment. If you are present, not as a fully equipped expert in trauma and emergency but as a passer by, your assessment may still be very helpful in terms of helping the ambulance crews decide who needs urgent transfer to hospitals, who can wait and who does not need the services of an emergency department.

Talk to the patients if conscious. Come over as competent and reassuring as they will be very anxious and ask where it hurts to get an idea of injuries.

If there is any doubts about fracture apply a splint in order to support the fracture site as even a well fitted and applied splint allows some movement.

Fractures and abdominal trauma may produce considerable concealed haemorrhage. They need to transfer nearby hospital as soon as possible.

Identify the time-critical patient. Some will die unless rapidly removed from the vehicle, at whatever cost. Entrapped patients should be removed in less than half an hour.

When the patient is unconscious remember the ABC — airways, breathing, circulation. If there is sudden deterioration check ABC again for a possible cause.

Principles of extrication

- Stabilise the vehicle where it lies as movement may exacerbate injury.

- Make the vehicle safe. Switch off the ignition, disconnect the battery, swill away any petrol.

- The easiest way to enter a car is through the door, so try this before removing the windscreen or the roof.

- Remove the wreckage from the casualty, not the casualty from the wreckage. Do not try to manoeuvre the casualty through too small a hole.

- Do not move from one entrapment situation straight into another. If necessary spend a short time stabilising the patient before moving into the back of the ambulance.

Fire

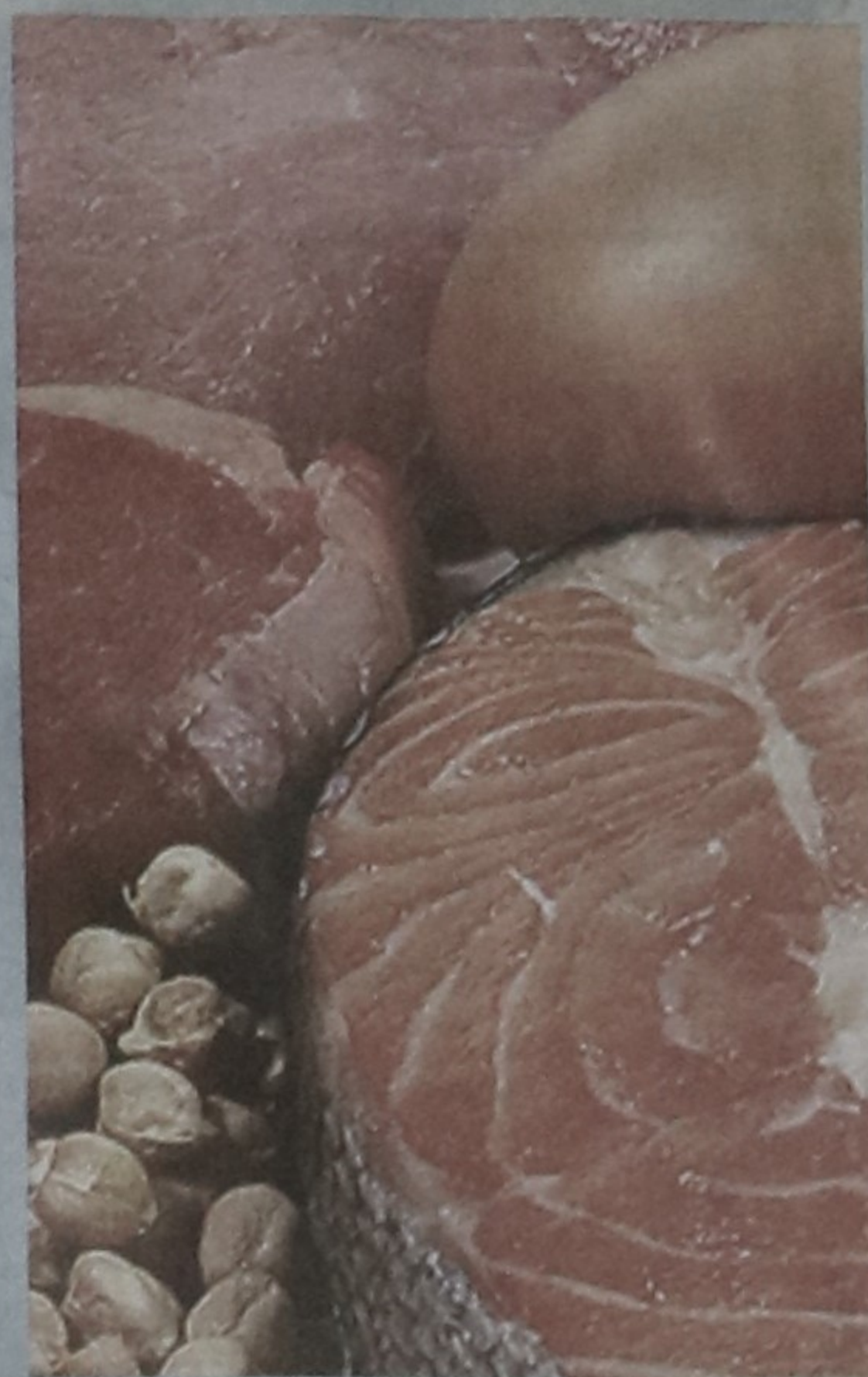
- Fewer than 5 percent of road traffic accidents result in fire, and less than 1 in 500 results in significant burns.

- Switch off the ignition of your and any other vehicle.

- Ensure nobody at the scene of the accident is smoking or produces a naked flame.

Chemical

Lorries carrying hazardous loads are required to display an orange board that will reveal information on how to fight a fire, what protective equipment to wear, if the chemical can be safely washed down the storm drains, and whether to evacuate the area.



High-protein meals may help overweight burn fat

Higher-protein meals may help overweight and obese people burn more fat, the results of a small study suggest.

Research has shown that overweight people are less efficient at burning fat after a meal than thinner people are. In the new study, Australian researchers looked at whether the protein composition of a meal affects that weight-related gap.

They found that overweight men and women burned more post-meal fat when they ate a high-protein breakfast and lunch than when they had lower-protein meals. That is, the added protein seemed to modify the fat-burning deficit seen in heavy individuals.

"Our research suggests that people with higher body fat burn fat better after a high-protein meal than people with lower levels of body fat," lead researcher Dr. Marijka Batterham, of the University of Wollongong in New South Wales told. A number of studies have suggested that high-protein diets may help people shed weight

more easily — possibly, in part, because protein suppresses appetite better than fat or carbohydrates do.

The current study did not look at weight loss, so it's not possible to tell whether the increased fat-burning seen in overweight participants would translate into fewer pounds over time, Batterham said.

But answering that question, she said, will be the next step.

The protein-rich meals contained low-fat dairy, lean meat and eggs, along with bread and vegetables as carbohydrate sources. Batterham said she and her colleagues are now testing whether vegetarian sources of protein have similar effects on overweight adults' fat metabolism.

In general, experts recommend that people looking to bulk up the protein in their diets choose their sources carefully — eschewing bacon and butter in favor of foods like fish, poultry, low-fat dairy, beans and nuts.

Source: Nutrition & Dietetics



Chronic cough? Iron deficiency could be to blame

REUTERS, Chicago

Instead of cough drops, some women may need to reach for an iron supplement to treat that pesky cough, Italian researchers said recently.

The study, presented at the scientific meeting of the American College of Chest Physicians in Chicago, suggests iron deficiency may help explain why some otherwise healthy, non-smoking women had persistent coughs.

Tests on women with chronic coughs and iron deficiency showed that a simple iron supplement often cleared up the cough, said Dr. Caterina Bucca of the University of Turin and colleagues.

Bucca said women also are more likely than men to suffer from otherwise unexplained chronic coughs.

Immune function can be affected by iron deficiency, which is defined as having low iron levels, sometimes to the point of anemia.

Bucca and colleagues studied women with chronic cough who were found to have normal lung function, with no signs of asthma or

other respiratory disease and no evidence of acid stomach reflux that could explain their coughing.

All had iron deficiencies. And they all had signs of swelling in the back of the mouth and red, inflamed mucous membranes. Their vocal cords were also very sensitive, making them cough and choke easily, such as after vigorous laughing.

Bucca gave these women iron supplements to improve their iron stores. When these had normalized — after about two months — they were checked again. After iron supplementation, coughing and signs of inflammation in the mouth and vocal cords were improved or completely resolved.

"I found the hypersensitivity was nearly gone or vastly improved in all of the women," Bucca said.

Because iron helps regulate the production of proteins in the immune system that control inflammation, an iron deficiency might make the upper airway more prone to inflammation, leading to this chronic cough, Bucca reasoned.

Save the newborn

DR WAZIR AHMAD

The death of a newborn is a very painful experience for the mothers who have taken the ordeal of pregnancy for 9 months or so. The causes of newborn death in Bangladesh are manifold like poverty, lack of medical check up, home delivery etc.

Bangladesh has one of the highest newborn deaths in the world. It is about 37 per thousand live births per year. Nearly 4 million babies die after delivery each year throughout the world out of which 98 die in developing countries including Bangladesh. Out of total deaths 45% die within first four weeks of life and 30% die within one year.

In order to decrease this huge number of deaths every year, a pragmatic coordinated approach is needed by all concerned, it is not possible for the government to solve this gigantic problem all alone, both government and non-governmental organisations should make every effort in a combined way to mitigate this human tragedy.



MDG-5 is to reduce child mortality by two thirds by the year 2015. It is heartening to note that the under 5 mortality in Bangladesh has come down significantly in the last decade, from 88 to 66 per 1000 live births per year.

But the main contributing factor affecting the high under-5 mortality is the bulk of the new born deaths that occur within the first 28 days of life. So it is imperative that we need to address the problems that affect the new

born deaths more seriously in a coordinated way at the grass root level i.e. in the non urban areas, where a large proportion of deliveries take place in the home setting, compounded by meager medical facilities and manpower within the vicinity.

We all know that the main cause of newborn death in Bangladesh is home delivery, lack of trained personals and medical facilities, delayed referral, transportation problem etc. To address

these problems the most important thing is to produce skilled birth attendants (SBA) who will be trained to do the following things:

- 1) Conduct normal deliveries
- 2) Identify the danger signs
- 3) Quick referral and transportation to higher centers

At the same time we should put emphasis on:

- 1) Improve obstetric and neonatal care at thana and district level
- 2) Control population boom
- 3) Compulsory birth and marriage registration
- 4) Improve women education

In a country like Bangladesh institutional delivery is not possible, we need to utilise our human resources by producing more SBA's in order to bring down neonatal mortality.

This is a huge task which needs to be jointly addressed by all.

The writer is an Associate Professor of Neonatology of Chittagong Maa-O Shishu Hospital Medical College.

WORLD BREASTFEEDING WEEK

No gift is more precious than breastfeeding



World Breastfeeding Week is celebrated every year from 1 to 7 August in more than 120 countries to encourage breastfeeding and improve the health of babies around the world.

Malnutrition is responsible, directly or indirectly for about one third of deaths among children under five. Above two thirds of these deaths, often associated with inappropriate feeding practices, occur during the first year of life.

Nutrition and nurturing during the first years of life are both crucial for life-long health and well-being. In infancy, no gift is more precious than breastfeeding; yet barely one in three infants is exclusively breastfed during the first six months of life.

The World Health Organisation recommends that infants start breastfeeding within one hour of life, are exclusively breastfed for six months, with timely initiation of adequate, safe and properly fed complementary foods while continuing breastfeeding for up to two years of age or beyond.

DID YOU KNOW?

Fasting found to reduce chemo side-effects

REUTERS, Washington

A few days of fasting might help protect patients from some of the unpleasant and dangerous side-effects of cancer chemotherapy, researchers reported.

They said mice given a high dose of chemotherapy after fasting thrived while half of a group of well-fed mice died, they reported in the Proceedings of the National Academy of Sciences.

The researchers stressed that people should not try this on their own yet but said the findings might lead to a way to use chemotherapy to more effectively kill tumors while sparing healthy cells.

People say "they are miserable after they get the chemo and they lose weight because they don't want to eat after they get the chemo."

His lab is preparing to test the idea in humans.

Longo and colleagues first tested yeast cells, then human cells in lab dishes. They found healthy cells starved of nutrients survived the ravages of chemotherapy — but not cancer cells.

"In theory, it opens up new treatment approaches that will allow higher doses of chemotherapy. It's a direction that's worth pursuing in clinical trials in humans," cancer researcher Pinchas Cohen of the University of California, Los Angeles, who was not involved in the study, said in a statement.

Hibernation mode

Longo and colleagues said animals fed a low-calorie diet live longer, in part because their cells can resist stress better. They also

noticed that starved cells go into a kind of hibernation mode, while cancer cells form tumors because they lack an "off" position, growing uncontrollably.

Longo wondered if the starvation response might be a way to differentiate healthy cells from cancer cells. One reason chemotherapy causes side-effects is that it affects all active and growing cells — tumors, but also hair follicles, the lining of the intestines and other cells.

"We administered an unusually high dose of etoposide (80 mg/kg) to mice that had been starved for 48 hours. In humans, one-third of this concentration of etoposide is considered to be a high dose and therefore in the maximum allowable range," they wrote.

The high dose killed 43 percent of the mice that were fed normally but just one starved mouse. The starved mice regained their lost weight within four days.

They found the effect with four different chemotherapy drugs, he said.

An even higher dose killed all of the well-fed mice from a different genetic strain but none of the starved mice, and again the mice that fasted regained their weight.

Other cancer experts said a few days of fasting would not harm most cancer patients.

"We have passed the stage where patients arrive at the clinic in an emaciated state. Not eating for two days is not the end of the world," agreed Felipe Sierra, director of the Biology of Aging Program at the National Institute on Aging.