

Medication safety for children

DR MD RAJIB HOSSAIN

The recent incidence of Paracetamol poisoning in Bangladesh and its fatal consequences have alarmed us once again about drug safety for the children. Similar incidence that occurred few decades ago claimed thousands of infants' life.

Repeated death due to Paracetamol adulterated with diethylene glycol, a toxic chemical usually used in plastic, rubber, textile and leather dying industries shows lack of vigilance and negligence over the safety of over-the-counter medications by Drug Administration. Not only the adulterated Paracetamols, but also other over-the-counter drugs (nonprescription medicine) pose a high risk, especially for the children as their excretory system is not that much matured and capable.

A recent study from the Centers for Disease Control and Prevention has found that more than twice as many children are accidentally poisoned with prescription and over-the-counter medicines as with household consumer products.

Most of the affected children ingested medicine without their parents' knowledge, but 8 percent of emergency room visits and 14 percent of hospitalisations were the result of par-

ents' accidentally overdosing their offspring. More than 75 percent of the medication overdoses were in children under 5.

Medicine purchased for children without a prescription, often contain the same ingredients as prescription medicine and can pose serious safety risks due to overdose. Give infants and children only medication specifically formulated for their age and weight. Do not cut adult tablets in half or estimate a child's dose of an adult-strength liquid product. If you have any questions about a nonprescription medicine for your child, ask a paediatrician for proper advice.

More than half of all accidental poisonings occur in children aged between one and five. Medicine are among the risks found in every household. We should avoid the following things in order to keep the children safe from medication poisoning.

- Avoid taking medications in front of your children, who often try to imitate adults
- Keep all medications (both prescription and nonprescription) in their original, child-resistant containers
- Check medications for expiration dates. If a product is not dated, discard it a year



A baby is taking inhaler imitating his senior family member

or less after purchase

- Avoid discarding medications in open trash containers in the kitchen or bathroom where children could get to them

If your baby ingests medication accidentally or unintentionally being given overdose, try to obtain a complete and reliable history before you take the baby into a hospital.

- If the substance was ingested (swallowed), inhaled, splashed into the eyes or absorbed through the skin

- How much of the potential poison was involved? When unsure of the exact amount, over-estimate the amount for safety reason. For example, if you are unsure how many pills remained in the bottle assume that the child ingested the full number that were prescribed.
- Any treatment that has already been given
- Save all original containers or bottles as they contain a list of ingredients included in the medication or product in question

Before you reach a hospital you can give the following first aid care for your children.

Inhaled poison

Get the child to fresh air immediately. Allow fresh air by opening doors and windows. If the child is not breathing, s/he needs immediate artificial respiration.

Poisons on the skin

Remove all clothing that is contaminated and begin to flood the skin with water for ten full minutes. Wash gently with soap and water and

rinse the skin well.

Poisons in the eye

Flood the eye with water poured from a large glass or pitcher held about two to three inches from the eye. Continue to do this for 15 minutes and ask the child to blink as much as possible to assist in irrigating the eye. Do not attempt to force the eyelids open.

Ingested or swallowed poisons

If a child has ingested a medication or potentially poisonous substance do not give anything by mouth until you have been instructed to do so. Some substances when ingested result in irritation and burning to the mouth, throat, and digestive tract. By forcing a child who has ingested a corrosive substance to vomit you can cause further damage.

Protecting children from the toxic exposure of drugs, chemicals, and other potential household hazards is an important role for parents. Poison prevention begins by educating parents, grandparents, and others who are entrusted with the care of our children about what types of substances can be harmful to children. With a little precaution we can prevent such accidental poisoning.

E-mail: rajibssm@gmail.com



Is marriage a good carriage?

It is said that behind every success of a man/woman, there is a woman/man. Even if it is not totally true, people admit that bad company is always very harmful for health—both mentally and physically. And in case of 'husband and wife'—they are the best and closest companion for each other. But, is 'marriage' good or bad for health?

According to the statistics, the answer is both. A recent study (American Psychosomatic Society) suggests that women suffer from health problems more than that of their husbands. But that does not mean that men do not suffer at all. More surprisingly, a study at the University of Missouri claimed that even murder can be a problem in marriages.

According to studies, about half of all unhappy marriages end in divorce (or separation) and it has been also proved in many researches that divorce is very bad for health as well. A study found that divorced men have a 20 per cent increase in health risk.

According to virologists at Ohio State University, couples who are used to with rows and arguments can be dreadful for health. They found that rowing couples are more likely to suffer from high blood pressure and other diseases. Short temper, flexible personality and haughty shouting are also awful.

An extensive study into the health and lifestyle of British civil servants, published in 2007, claimed that an unhappy marriage could lead to increased stress and risk of heart disease. Another Nottingham University study found that married men and women can pick up their partner's health problems.

Discontented couples are more likely to feel

depressed than happier couples, they are more likely to develop high blood pressure, high cholesterol, high blood sugar and what not! A Utah University study found another marker known as metabolic syndrome — that is known to boost the risk of diabetes, heart diseases and even stroke.

On the other hand, Rotterdam University scientist found that from a checklist of 23 major illnesses and health problems, from migraines and cancer to arthritis, married people were healthier on every score than unmarried.

According to a Karolinska study, married people are half as likely to develop Alzheimer's as single people. Another Swedish extensive study showed that married men were less likely to die from heart disease and strokes than their living together associates.

Many other studies also support that there are more health risks for unmarried compared to married men. But definitely, turbulent relationships between partners are not healthy factors. Especially people who suppress their emotion and anger are more at risk.

Certainly the couples who have good understandings and lead a healthy lifestyle are not only healthier than single people, but also better than unhappy married couples who have been together for years. Happy marriages are the healthiest, with married people having thinner heart walls and lower blood pressure.

Well, try to choose your partner carefully. Although an unhappy marriage is bad for health — but if it is already strained, focuses on sacrificing, as in modern life, marriage means probably nothing but adopting a sacrificing nature.

DID YOU KNOW?

Birth control pills may lower colon cancer risk

Women who have used birth control pills seem to have a slightly decreased risk of colon cancer as they age, a new study suggests.

Researchers found that among nearly 90,000 women ages 40 to 59, those who had ever used oral contraceptives were 17 percent less likely to develop colon cancer over the next 16 years.

The findings are in line with evidence suggesting that estrogen plays a role in colon cancer risk.

Some studies, for example, have found that older women on hormone replacement therapy (HRT) have a lower risk of the disease. In addition, lab experiments have shown that estrogen may inhibit tumor development in the colon by affecting cell growth, or by lowering levels of a cancer-linked hormone called IGF-1.

However, it is too soon to conclude that birth control pills offer colon cancer protection, according to lead researcher Dr. Geoffrey C. Kabat, of Albert Einstein College of Medicine in New York.

It is also possible that there is something else about women who use birth control pills that makes them less susceptible to colon cancer, Kabat explained. They may, for example, be more physically active and weigh less — two factors that studies suggest may lower the risk of colon cancer.

The results are based on 89,835 Canadian women taking part in a study on breast cancer screening that followed them for an average of 16 years. During that time, women who had ever used birth control pills were less likely to develop colon cancer. However, this was not true of women who had used HRT, in contrast to what several previous studies have found.

According to Kabat, there are still "many questions to sort out" regarding hormone use and colon cancer, and the results of any single study have to be interpreted cautiously. More studies are needed, he said, to figure out what factors are important in colon cancer development.

Source: International Journal of Cancer

ALTERNATIVE ARRANGEMENTS FOR SUPPORTING TB PATIENTS

Cured patients help in TB treatment

Treatment of tuberculosis involves taking tablets daily for at least six months. TB patients must take all their medications as prescribed, failing which they may not recover and dangerous drug-resistant TB strains may develop. That is why it is considered ideal for TB patients to come to a treatment facility to take their tablets in the presence of a health worker — at least in the early, intensive phase of the treatment.

Not everyone can travel daily to a health facility, however. The closest treatment facility may be too far away. Or the person may not be well enough. The WHO Stop TB Strategy therefore encourages alternative arrangements for supporting TB patients as they take their treatment.

A friend, neighbour or community leader who has been educated about the process and demonstrated commitment can take on this role with help from health services. A variety of groups in many countries are developing their own approaches to community TB care.

This story showcases one such initiative in rural Kibaha in the United Republic of Tanzania. Members of the Upendo Disadvantaged Group all of whom have



WHO/EVELYN HOOKSTON

been cured of TB — support and care for TB patients in their community.

When Jane Tibihka of the United Republic of Tanzania was cured of tuberculosis (TB) in 2004, she recognised that former TB patients could be a valuable resource. "They have the understanding and motivation to help others sick with the disease," she says. She formed an organisation of former TB patients, the Upendo Disadvantaged Group.

Upendo is now a registered NGO with branches in Dar es Salaam and Kibaha, a nearby rural district. The Kibaha group's 31 community-based home care providers focus on primary care for more than 200 TB patients in the district.

Upendo's office in Kibaha receives a visit from Dr David Wawa, who serves as a medical adviser to the group. Dr Wawa is on staff at Tumbi Hospital, which is seven kilometres away.

In many parts of the world, TB patients travel daily to a health facility to receive their medication. Not so for most of the residents of Kibaha, because Tumbi Hospital is too far away. Patients generally pick up their medicines monthly and learn to take the drugs on their own with support from their families and Upendo's community health workers.

Dr Wawa provides guidance to Upendo's community workers on primary care basics and TB care. Here he explains to Nurdinir Mayoyo

how to coach people on remembering their TB tablets. "It is good to advise them to take them at the same time of day for example, when a favourite radio programme is on the air," he says.

On a routine visit to Tatakae Selemani, who is ill with tuberculosis and living with HIV, Jane Tibihka checks a medication diary to make sure he is taking all tablets as prescribed.

Nurdinir Mayoyo delivers a package of food to Celestine Benja. TB medicines are difficult to tolerate without good nutrition. Upendo's members supplement TB patients' diets as often as they can.

Rajabu Saidi assists Mariam Abdala as she takes a brief walk. Abdala has been on TB treatment for nearly six months and has been bedridden much of the time.

The Upendo group organises community gatherings featuring music and poetry to educate their neighbours about TB. Here residents talk about how to recognise the symptoms of the disease.

"We will never be free of this disease if we do not make people especially youth — more aware and less afraid," Tibihka says.

Source: World Health Organisation

Facts about stem cell therapy

DR SOVAN DEY

Stem cell is one of the master cells of human body with the ability to grow into any one type out of body's more than 200 cell types. These stem cells preserve the ability to divide throughout life and give rise to cells that can become highly specialised and take the place of cells that are dead or lost.

The biological task of stem cells is to repair and regenerate the damaged cells in our body. Stem cells can help in healing of the

damaged tissue when these cells are administered either systemically or directly into the damaged tissue. For example, bone marrow stem cells are the most primitive cells in the marrow. Various types of blood cells are derived from them. Bone marrow stem cell transfusions or transplants are done to treat blood disorders including leukemia, lymphomas etc.

The surprising properties of stem cells are ability to renew and repair tissues

which are injured. Thus (a) They can renew themselves for long periods through cell division and (b) under certain physiological conditions; they can differentiate to other types of cells such as nerve cells, muscle, blood cells etc.

Diseases currently treatable by stem cell therapy are critical limb ischemia, acute myocardial infarction, spinal cord injury, Parkinson's disease, multiple sclerosis, diabetes type 1, muscular dystrophy, motor neuron disease, osteoarthritis etc.

The stem cells have been the focus of research in recent years because of their enormous potential to heal human organs affected by diseases which are not treatable by conventional medical therapies.

There is a hope that stem cell therapy will be available in Bangladesh in near future. Some organisations are trying to introduce therapeutic services.

The writer is a student of Public health research at Latrobe University, Melbourne, Australia. E-mail: sdey@students.latrobe.edu.au



Ampoules containing a medium for stem cell storage

