

## Chapter 6

### NUTRITIONAL SUPPORT DURING HOME BASED CARE OF PLWHA

#### 6.1 Nutrition Components of Home-Based Care:

Many families provide care and support for their beloved ones suffering from HIV and AIDS. Care for the PLWHA in the home may be provided by a family member (mother, father, brother, sister, young adult), a relative, a neighbour, or friend(s). The care for a PLWHA is not an easy task. Whoever is providing the care needs support as well. The task involves meeting the needs of the sick person and balancing these with the needs of other members of the family. The care provided should not be overbearing. The dignity and self-respect of the PLWHA should be maintained and as much independence as possible should be respected in order to boost self-esteem. Nutrition care and support of the PLWHA at home is important and involves:

- Supporting the family or caregiver to ensure the patient has adequate intake of balanced diet;
- Providing nutrient dense meals and snacks that are appetizing to prevent weight loss or replenish lost nutrients;
- Managing the HIV symptoms related to diet so as to minimize their impact on the patient's nutritional status and
- Practicing food safety and hygiene to avoid food-borne illnesses.

#### 6.2 Nutrition During Palliative Care in the Home:

Palliative care may also be provided in the home to maintain the dignity and self-respect of the PLWHA. Usually with palliative care, nutrition interventions become less paramount and the focus is on addressing the physical, psychological and spiritual needs of the patient. The main goal is to help relieve pain and other symptoms and allow the patient to live in comfort and with dignity during the final stages of life.

The following hints will assist the caregiver in providing good home-based care:

- Spending time with the person living with HIV/AIDS.
- Discussing the foods they need to maintain or gain weight and manage their illness. Get to know what kind of foods they like and do not like.
- Involving patients in planning their own meals.
- Weighing the patients regularly and keeping a record. Looking out for any undesirable weight loss and taking action.
- Checking the medicines they are taking. Read the instructions to find out when they need to be taken, what foods need to be avoided and what side effects to watch out for (**see Chapter 7**).
- Being encouraging and loving, and reinforcing positive living. (**See Annex 5**).
- Being flexible and patient. If the patient wants to have food of their choice at any time of the day, this should be discussed with them. They may suddenly stop liking a food, refuse what has been prepared, and want something different. This should be understood as not being difficult.
- Stressing the importance of eating and encouraging them to eat small frequent meals. Too much food at one time may lead to losing their appetite and refusing to eat.
- Stressing the importance of drinking and encouraging them to take small and frequent amounts of safe fluids in order to avoid dehydration.
- Providing the patient with something to drink and a snack within easy reach.
- Encouraging good personal hygiene and food safety practices for handling, preparing, cooking and serving food in the household.
- Encouraging light exercises like walking in the neighbourhood and carrying out simple chores.

- Encouraging sick persons living alone to invite family or friends for a meal. Encouraging others in their neighbourhood and support groups in the community to visit them and/or invite them out.
- Providing massage where possible to the patient that is bed ridden to help prevent muscle atrophy and loss of muscle mass.
- Ensuring that bed-ridden patients should be turned from time to time to avoid the pressure sores. Frequently bathing them and changing of their bed linen.

Caregivers will have their own concerns and worries, fears for the future, for their families and for their own health. It is important that they take care of themselves, get enough rest and have the appropriate information and support to carry out their difficult task.

## Chapter 7

### NUTRITION AND HIV/AIDS THERAPY

#### 7.1 Nutrition and Antiretroviral Therapy:

PLWHA may take various types of medications to reduce the effects of HIV on the body, to treat opportunistic infections, and other common ailments such as colds, malaria, and/or intestinal parasites. Some also use herbal remedies and take micronutrient supplements.

Though there is no cure yet for HIV/AIDS, antiretroviral (ARV's) drugs are being used to manage HIV by lowering the viral load and thus reducing morbidity and mortality. These types of drugs include:

- non-nucleoside reverse transcriptase inhibitors;
- nucleoside reverse transcriptase inhibitors;
- protease inhibitors and;
- fusion inhibitors.

Drugs can be given in combination (combination therapy) in order to produce a synergistic effect. This is currently the most effective way to treat HIV positive patients rather than using only one drug (mono-therapy). Interactions of medicines and food can affect the medication's efficiency, nutritional status, and adherence to drug regimens. It is important to know the food and drug interactions in order to minimize detrimental side effects, reduce drug resistance and ensure the efficiency of the medication. Side effects that affect food consumption or interactions that limit food intake or reduce nutrient absorption can lead to poor medication adherence. Dietary management of the side effects can help to minimize the effects and improve the client's adherence to the treatment protocol, and tolerance to the drugs. The main food and drug interactions are presented below.

#### 7.2 Nutrition Actions to Support People on ART:

1. All people living with HIV/AIDS should be provided with updated information on food-drug interactions to mitigate the side effects of medication.

This information can be obtained from the health facilities providing service on ARVS, community based communication channels such as peer-groups, nutrition councillors, health education community based organisations, newsprints or journals on ARVS and nutrition, and even various websites such as WHO, UNAIDS, FANTA and National Aids Council.

2. All PLWHA on ARTs should be educated, advised and counselled on the sequencing of the food and drug intake to increase drug efficiency.

The intake of food with medication can enhance or inhibit the absorption, metabolism, distribution and excretion of the medication. Dietary management to improve the efficiency of the medication will include either taking the medication with food, on an empty stomach, or with or without certain types of foods.

Food can reduce the absorption of certain drugs, for example, the absorption of the TB medication Isoniazid is reduced if taken with food. Hence, it should be taken 1 hour before or 2 hours after a meal. Some ARVs efficiency is affected by food. For example, a high-fat meal increases the bioavailability of the ARV Tenofovir, whereas a high fat or high protein meal decreases absorption of Indinavir and reduces the absorption of the Zidovudine. It is thus recommended not to take Zidovudine with a meal high in fat.

If possible meals should be planned and timed. Timing of medications should be adhered to reduce side effects from food-drug interactions.

**The drug and meal timetable should involve the following:**

- adjusting the timing of drug and food consumption to enable specific drugs to be taken with or without food as required;
- increasing or/decreasing consumption of certain foods or (supplements) to compensate for drug effects on nutrients absorption;
- changing the pattern or content of meals to address drug side effects;
- avoiding certain foods contraindicated by a drug;
- other responses as required by the food and nutrition interactions of the specific drugs the PLWHA are taking and the individual needs and reactions.

3. PLWHA on ARVs should be counselled and advised on any diet modifications that maybe needed to enhance nutrient absorption and metabolism.

Some medications can interact with certain nutrients in food affecting their absorption, metabolism, distribution and excretion and, hence, reducing their efficiency. For example, Isoniazid used in the treatment of TB inhibits the metabolism of vitamin B6. Supplementation of this vitamin is recommended to avoid developing vitamin B6 deficiency. The antibiotic tetracycline inhibits the absorption of calcium, magnesium zinc and iron. Appropriate supplementation with these may be required to avoid deficiencies when one is on these drugs.

Some ARVs produce metabolic disorders including elevated levels of triglycerides, cholesterol, fat maldistribution and insulin resistance (which may lead to diabetes). These changes require dietary modifications such as avoiding foods high in cholesterol, exercising daily, avoiding alcohol and smoking and/or taking medications to lower the lipids. Elevated lipids as well as diabetes are a risk factor for heart disease.

4. All PLWHA on ARVs should be counselled or advised on the possible side effects associated with ARVs that might affect their nutritional status and how to mitigate harmful effects. Many medications can cause side effects that can affect food intake and nutrient absorption. These side effects include nausea, vomiting, loss or change in taste, loss of appetite (anorexia), bloating and heartburn, constipation, and diarrhoea. These side effects can result in poor nutrient intake and absorption, weight loss and ultimately malnutrition. In turn some ARVs can cause metabolic side effects that increase the risk of other nutrition related conditions such as heart disease (as indicated above).
5. All PLWHA on ARVs should be counselled or advised on which foods they should avoid or take to improve drug efficacy. There are some foods that are contraindicated when taking some medications because their interaction causes side effects. These foods should not be taken at the same time as the medications.

For example, grapefruit juice should be avoided when taking the ARV Indinavir as it may lower the efficiency of the medicine. Consuming alcohol may cause inflammation of the pancreas while taking the ARV Didanosine. Alcohol should also be avoided when taking the ARVs Rifampin, Zidovudine, and Lamivudine as well as the anti-TB medication Isoniazid. Alcohol should also be avoided as it may increase the risk of inflammation of the liver, which could be fatal. Alcohol consumption is generally contraindicated when taking other medications and not just ARVs (**Annex 6**).

6. All PLWHA on ARV who do not have access to nutritious food, should be linked to programmes that support provision of such foods. PLWHA on ARVs may be constrained by lack of access to or limited availability of nutritious food due to poor incomes, inadequate food production or lack of alternative foods. This could be a problem in managing the drug acceptability and meal timetable which, if not checked, may result in stopping ARVs therapy. In case PLWHA on ARVs are faced with constraints of limited access to food, below are some options to consider:
  - Be actively involved in making appropriate drug and meal timetables, using locally available and affordable food products as needed by specific food-drug interactions.
  - Seek help on food supplementation from existing referral systems in case of those PLWHA from poor resource households.
  - Make household members aware of the food-drug interactions so that they support intra food distribution for PLWHA to receive special attention.
  - Get information on other food sources and combinations from nutrition counsellors and health practitioners that will minimise effects of food-drug interactions.
  - Find help from programmes or projects providing some form of food for work, food for assets or food aid.

### 7.3 Herbal Treatments and Remedies:

Apart from ARVs, herbal remedies can also be used for treatment of HIV and AIDS symptoms. Whatever treatment is used, maintaining good nutrition is still important as it helps to build a strong immune system. Therefore, if on medication, more attention needs to be paid to provide adequate proteins and energy to carry the medicines throughout the body or to sites where they are used.

**Please note** that the advice presented here, is based on knowledge and experience gained from PLWHA on useful herbal treatments and remedies. It does not claim that all herbs and remedies have the same effect on all people. PLWHA often become frustrated with management of the disease and may be tempted to try anything in the hope of staying healthy and living longer.

### 7.4 Nutrition Actions to Support People Interested in Herbal Treatment

1. Service providers who come in contact with people who are interested in traditional remedies should understand and be sensitive to traditional beliefs and the kinds of traditional care available. Traditional remedies represent alternatives to formal general medicine. For many people, this could be the only option they may have. However, some traditional beliefs and food practices may be harmful. It is important to find out more about the local practices and note those that may be harmful and discuss with both PLWHA and the traditional healers why such practices should not be followed. Those traditional practices and therapies that provide readily accessible, effective and low-cost remedies should be identified, encouraged and promoted.

2. Service providers should be familiar with the various herbs and traditional therapies that PLWHA may be taking or using and advise them of any harmful effects these may have on their health.
3. PLWHA should be advised to always discuss treatments with a health worker, doctor or nutritionist and avoid any treatment or practice, such as fasting, which cause weight loss. At present there is no evidence of traditional medicines or therapies that can cure or treat HIV and AIDS. However, certain traditional medicines may help to treat many of the symptoms of opportunistic infections that are part of AIDS. While some of these medicines may be undoubtedly helpful, others may be dangerous because they may do more harm than good. They may be expensive and, therefore, reduce money available for buying food. They may make one not to eat some foods.
4. PLWHA can use herbs as long as they are not harmful and do not interact with medication the patient may be taking to treat opportunistic infections.

Herbs and spices can help improve digestion, give appetite and preserve foods. A list of herbs and spices, and their beneficial effects as claimed by PLWHA are given in **Annex 7**.

Spices can be used to enhance the flavour of foods, to stimulate appetite and to manage taste changes that can occur in HIV disease or as a side effect of medication.

However, caution should be given to PLWHA about various herbs that may be sold claiming to cure HIV. All herbs and spices should be used in moderation.