

FORTH :

Miscellaneous Reports on :

1-Environmental Audit : -

Pursuant to Article (6)(2)(p) of the National Audit Chamber's Act for 2007, the Chamber has conducted a number of environmental audits, prepared detailed reports on these audits and sent them to the concerned parties.

This year the Chamber audited the methods of dealing with the medical refuse (waste). A sample of **13 hospitals** in the two States of Khartoum and AL-Jazira was selected for the audit. The selected sample was limited to the teaching and specialized hospitals and included the following ones : -

- **Radiation & Isotopes Center Khartoum.**
- **Radiation & Isotopes Institute Medani.**
- **Khartoum Teaching Hospital.**
- **Omdurman Teaching Hospital.**

- **Bahri Teaching Hospital.**
- **Ibn Siena Teaching Hospital.**
- **Soba Teaching Hospital.**
- **The Chinese Friendship Hospital.**

- **Ahmed Qasim Hospital.**
- **Omdurman Maternity Hospital.**
- **Khartoum Dental Hospital.**
- **Khartoum ENT Hospital.**
- **Khartoum Dermatology and STD Hospital.**

As mentioned earlier, the results of these audits were sent to the concerned units. The most important observations mentioned therein include the following remarks: -

1. There is no law that regulates the practice and process of dealing with the medical refuse. However, there is a bill that is still under review. Some hospitals are implementing the general directives of the said bill but others do not abide by the measures of providing safety and protection to the employees, the patients and the escorts.

2. A- The refuse in the Radiation & Isotopes Centers is primarily composed of highly hazardous, hazardous and normal waste. Protection means, as basic structures, are

available in both hospitals (Khartoum and Medani) however; the work pressure in Khartoum Hospital has led to nonconformity with the disciplinary measures in certain ways like the movement of the patients with their escorts while

carrying their medications or samples to the laboratory and throwing chemical waste, parasites and contaminated objects into the sewerage.

B- Wad-Medani Hospital is characterized by modernity and the availability of new divisions that are not available in any other hospital in Sudan. However, it suffers from the problem of discarding the protective lead after being used as well as storing the new unused one.

C- The employees are protected from being exposed to the radiation and a close cooperation in this respect is maintained with the International Atomic Energy Agency.

D- The clinical genetics division in Khartoum Radiation & Isotopes Center which is concerned with the identification of the different types of cancers (**tumors**) by means of chromosomes is the first and the only one of its type in Sudan. However, the work in this division has stopped due to

the breakdown of the centrifugal device as well as some other administrative problems.

We strongly recommend this sector to be supported with the necessary finance and the qualified cadre taking into consideration the increasing work pressure resulting from the

increase in the disease itself. And equally, we recommend supporting the scientific researches in order to find out the real reasons behind this increase.

3. Based on our observations, the teaching and specialized hospitals shown on the previous list suffer, with varying degrees, from the following drawbacks :

A- The lack of separating medical refuse from the normal or ordinary waste either in the whole hospital like (Omdurman Hospital) or in some divisions of it like (Khartoum Hospital).

B- Safety boxes required to keep the needles and other sharp objects are not available in the hospitals except a few of them that were supplied by either the World Health Organization (**WHO**) or self-support.

Some hospitals use plastic containers for this purpose (Soba Hospital).

4.A- There are no medical incinerators in all the hospitals except the Chinese Hospital, where it was first built with the construction of the hospital buildings, and Omdurman

Maternity Hospital which provided it for itself with the help of a Sudanese inventor.

However, both incinerators in both hospitals suffer the problem of the smoke uprise when used.

B- The rest of the hospitals, excluding Omdurman Teaching Hospital and Soba University Hospital, burn their medical refuse, which is primarily composed of rotten and contaminated blood and blood samples, in the Chinese Hospital incinerator.

5.A- Some hospitals and some divisions in other hospitals lack the means for testing and investigating Epidemic Hepatitis and Acquired Immune Deficiency Syndrome (**AIDS**) like Soba University Hospital. However, these two

tests are only run in the case of blood transfusion necessitated by blood bleeding during surgical operations.

B- In some hospitals blood samples showing positive AIDS or Epidemic Hepatitis cases are put into plastic bags, tied with a string or rope, carried by any of the cleaning workers and thrown into the ordinary garbage container.

6.A- Human organs remains which are composed of samples taken for testing and mutilated human parts in Soba Hospital are buried inside the fence of the hospital , and what is more, very close to the surface exposing them to be disinterred by animals .

However, a close cooperation and coordination between the hospital and **Hosnal–Khatima** Organization is now maintained, the matter that will results in safe and proper burial of these human organs.

B- In Omdurman Teaching Hospital the human tissues after being examined, are stored in a warehouse .Some of these tissues have been in the warehouse for well over a year without being disposed of.

The same practice is followed in Ibn Siena Hospital until finally buried by **Hosnal–Khatima** Organization.

7. A- In Soba University Hospital, the slides and glass panels of the laboratory are reused after being cleaned and sterilized.

B- Towels and aprons in the operations complex of Omdurman Teaching Hospital are reused after cleaning and sterilizing.

8. Omdurman Maternity Hospital and Bahri Teaching Hospital have demonstrated an excellent standard in dealing with the medical refuse. As for the rest of the hospitals, shown in the aforesaid list, they have shown a relatively good standard and hence, they must be supported to improve their quality standards in dealing with the medical refuse.

9. The comprehensive reports that were sent to the concerned units as well as to the Ministry of Health have included detailed information about the outcomes of the assessments.