

## Management of Cytotoxic Drugs Safely

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### DESCRIPTION

Cytotoxic drugs are used extensively in healthcare settings as well as in the community in the treatment of cancers as well as other diseases.

This paper provides information to companies on the occupational hazards related with cytotoxic drugs and the defenses to take when handling. It is not meant at manufacturers of cytotoxic drugs. Cytotoxic drugs (occasionally known as Antineoplastic) describe a group of medicines that contain chemicals which are toxic to cells stopping their growth or replication, and so are used to treat cancer. It can also be used to treat a number of other disorders such as rheumatoid arthritis and multiple sclerosis. Once inside the body, their action is not usually tightly targeted, and it can produce side effects both to the patients and others who become unprotected. It is used in range of settings including; hospitals, hospices, specialist oncology units, care homes, domestic homes and charitable organizations. It can also be used in veterinary clinics.

The toxicity of cytotoxic drugs means that it can present important risks to those who handle it. Occupational exposure can occur when regulator measures are inadequate. Exposure may be ended skin contact, skin absorption, inhalation of aerosols and drug particles; ingestion and needle stick injuries subsequent from the activities of drug preparation, handling patient waste, drug administration, transport and waste disposal.

Inadequate control measures could lead to abdominal pain, nasal sores, hair loss, vomiting, and liver damage. Contact dermatitis and local allergic reactions, foetal loss in pregnant ladies and malformations in children of pregnant women's, alterations to normal blood cell count, abnormal formation of cells and mutagenic activity or mutations forming.

**Measures to control exposure should be practical in the following activities:**

- Use totally surrounded systems where practicable

- Control exposure at source.
- Issue personal protective equipment

**More specific controls, such as:**

- Reducing the quantities of drugs used; the number of employees potentially unprotected; and their duration of exposure, to the least
- safeguarding safe handling, storage and transport of cytotoxic drugs and waste material containing or contaminated by them;
- Using good hygiene practices and providing suitable welfare facilities like prohibiting eating, drinking and smoking in areas where drugs are touched and providing washing facilities.
- Training staff handle cytotoxic drugs or deal with dirty waste, on the risks and the precautions to take.

### Personal protective equipment

Personal Protective Equipment (PPE) should be provided and used wherever risks cannot be sufficiently controlled in other ways. PPE should be selected based on person risk assessment. It is important that the PPE offers adequate protection for its intended use. Employees/persons must be trained in the use of PPE and it must be adequately maintained and stored.

**Monitoring exposure in the workplace:** Monitoring includes any periodic test or measurement which helps confirm the effectiveness of controls. Deterioration of control measures could result in a serious health effect; measurement is required to ensure work-related exposure limit or in-house working standard is not exceeded. Any change occurs in the conditions affecting employees/persons exposure which could mean that adequate control is no longer being preserved.

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**Received:** 29-Apr-2022, Manuscript No. CMT-22-17238; **Editor assigned:** 02-May-2022, PreQC No. CMT-22-17238 (PQ); **Reviewed:** 16-May-2022, QC No. CMT-22-17238; **Revised:** 22-Sep-2023, Manuscript No. CMT-22-17238 (R); **Published:** 29-Sep-2023, DOI: 10.35248/2167-7700.23.11.191

**Citation:** Ghasemi Y (2023) Management of Cytotoxic Drugs Safely. Chemo Open Access. 11: 191.

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