ONKOTRONIE
PRODUCT INFORMATION

NAME OF MEDICINE
Mitozantrone (as hydrochloride)

Mitozantrone hydrochloride is a synthetic anthracenedione. The chemical name is 1,4-dihydroxy-5,8-bis-[2-(2-hydroxyethylamino)-ethylamino]-9,10-anthraquinone dihydrochloride, and the chemical structure is as follows:

\[
\begin{align*}
\text{OH} & \quad \text{H} \\
\text{O} & \quad \text{N} \\
\text{N} & \quad \text{OH} \\
\text{OH} & \quad \text{N} \\
\text{O} & \quad \text{N} \\
\text{H} & \quad \text{H}
\end{align*}
\]

\* 2 HCL

The molecular formula is C\(_{22}\)H\(_{28}\)N\(_4\)O\(_6\).2HCl, and the molecular weight is 517.4. The CAS No. is 70476-82-3. Mitozantrone hydrochloride is a hygroscopic dark blue solid.

DESCRIPTION
ONKOTRONIE Concentrated Injection is a clear, dark blue liquid with a pH of 3.0-4.5. One mL of the solution for injection contains 2.328 mg mitozantrone hydrochloride (equivalent to 2 mg mitozantrone), with sodium chloride, sodium acetate, acetic acid-glacial and water for injection as excipients.

PHARMACOLOGY
Mitozantrone hydrochloride is a cytostatic agent that has shown substantial anti-tumour activity in the treatment of a variety of tumours. It is a DNA-reactive agent, but the precise mechanism of the tumour destroying effect has not yet been completely elucidated. Mitozantrone acts both on proliferating and non-proliferating cells. It is a cell cycle (phase) non-specific substance.

The main toxic effects of mitozantrone in animals at doses within the human therapeutic range are reversible myelosuppression (predominantly leucopenia, with anaemia and thrombocytopenia being less severe) and lymphocytic depletion of the lymphoid organs. In continuous daily dosage schedules, gastrointestinal haemorrhage and congestion were observed, but these were not seen in intermittent schedules as used clinically. Studies in dogs using mitozantrone in
combination with other antineoplastic agents indicated that additive myelosuppression might be expected from combination therapy.

Toxicological tests have been carried out with mitozantrone in order to study its cardiotoxic effects. In studies in dogs and monkeys, doxorubicin given at equileucopenic doses was used as a positive control for anthracycline-induced cardiomyopathy. Dogs given mitozantrone and untreated control dogs showed slight dilatation of the sarcoplasmic reticulum which regressed over time. In monkeys, clinical signs of congestive heart failure were observed in animals given doxorubicin but not in those given mitozantrone. In the doxorubicin-treated monkeys, myocyte changes were characteristic of degeneration, while the myocyte changes in monkeys given mitozantrone suggested cellular regeneration and repair. In rats, there was no evidence of the progressive cardiomyopathy characteristic of anthracyclines.

**Pharmacokinetics**

Mitozantrone is rapidly eliminated from blood plasma after intravenous application and is extensively distributed to tissues (apart from the CNS) and has therefore a large distribution volume. A triphasic plasma clearance is observed. Elimination is slow with a terminal half-life of over 12 days (range 5-18). Administration schedules of daily for 5 days and a single dose every 3 weeks resulted in similar estimates of the half-life. Plasma accumulation of drug was not apparent on either schedule.

Excretion by the biliary and faecal route appears to be the major pathway of elimination for mitozantrone. The renal excretion is of secondary importance; only 6-11% of the dose is recovered in the urine within 5 days after drug administration, with 65% of this being unchanged mitozantrone. The remaining 35% consisted primarily of two inactive metabolites, the mono- and di-carboxylic acid derivatives and their glucuronide conjugates.

One study found that a mean of 18.3% (13.6 – 24.8%) of a dose of $^{14}$C-labelled mitozantrone was excreted via the faeces over 5 days.

Mitozantrone does not cross the blood brain barrier or the placental barrier. Distribution into testes is relatively low.

One study found that the protein binding of mitozantrone was 78% at concentrations ranging from 26 to 455 ng $^{14}$C-mitozantrone/mL pooled human plasma. The extent of binding was independent of concentration.

No significant difference in the pharmacokinetics of mitozantrone was observed in patients with moderately impaired hepatic function (serum bilirubin 1.3 to 3.4 mg/dL) as compared to 16 patients without hepatic dysfunction. Studies in 4 patients with severe hepatic impairment (bilirubin greater than 3.4 mg/dL) suggest that these patients have a lower total body clearance and a larger area under the curve (AUC) than other patients receiving a comparable dose.

In animals, pharmacokinetic studies with radiolabelled mitozantrone indicate rapid, dose-proportional distribution into most tissues. Biliary excretion is the major route of elimination, with the urine and bile of the rat containing the same metabolites as
those present in human urine. There is no significant absorption of mitozantrone in animals following oral administration.

**INDICATIONS**

ONKOTRONE is indicated for the treatment of:
- locally advanced or metastatic carcinoma of the breast
- Non-Hodgkin’s lymphoma
- adult acute non-lymphocytic leukaemia (ANLL)
- chronic myelogenous leukaemia in blast crisis

**CONTRAINDICATIONS**

- Known hypersensitivity to mitozantrone
- Pregnancy, lactation
- Severe myelosuppression due to previous treatment with other cytotoxic agents or radiotherapy; treatment with mitozantrone should not be initiated until bone marrow has recovered
- Patients who have received prior substantial anthracycline therapy with abnormal cardiac function prior to the initiation of therapy (see Precautions)
- Severe hepatic impairment
- for intraarterial, subcutaneous, intramuscular or intrathecal administration due to associated toxicities

**PRECAUTIONS**

ONKOTRONE Injection should be administered only under constant supervision by physicians experienced in therapy with cytotoxic agents and only when potential benefits of Onkotrone therapy outweigh the possible risks. Appropriate facilities should be available for adequate management of complications should they arise.

Full blood counts must be checked before each administration of Onkotrone as well as undertaken serially during a course of treatment. Dosage adjustments may be necessary based on these counts (see Dosage and Administration).

Systemic infections should be treated concomitantly with, or just prior to, commencing therapy with Onkotrone.

**Instructions to Patients**

Patients should be instructed to inform their doctor of any prior abnormal heart conditions. Patients should also be advised of the signs and symptoms of myelosuppression.

Patients should be advised to expect a blue-green colouration to the urine for up to 24 hours after ONKOTRONE administration. Bluish discolouration of the sclera may also occur.
Administration
Onkotrone is not indicated for subcutaneous, intramuscular, or intra-arterial injection. There have been reports of local/regional neuropathy, some irreversible, following intra-arterial injection.

Onkotrone must not be given by intrathecal injection. There have been reports of neuropathy and neurotoxicity, both central and peripheral, following intrathecal injection. These reports have included seizures leading to coma and severe neurological sequelae, and paralysis with bowel and bladder dysfunction (see CONTRAINDICATIONS).

Haematological
Since ONKOTRONE produces myelosuppression, it should be used with caution in patients in poor general condition or with pre-existing myelosuppression due to any cause. There is high incidence of bone marrow depression primarily of leucocytes, requiring careful haematological monitoring or patients with severe infections at the florid stage. The haematological blood parameters must be monitored before each application of ONKOTRONE as well as at least once during each treatment cycle.

Following recommended doses of Onkotrone, leucopenia is usually transient, reaching the nadir at about 10 days after dosing, with recovery usually occurring by the twenty-first day. White blood cell counts as low as $1.5 \times 10^9/L$ may be expected following therapy, but white blood cell counts rarely fall below $1.0 \times 10^9/L$ at recommended dosages. Red blood cells and platelets should also be monitored since depression of these elements may also occur. Haematological toxicity may require reduction of dose or suspension or delay of ONKOTRONE therapy.

Topoisomerase II inhibitors, including mitozantrone, when used alone or concomitantly with other antineoplastic agents and/or radiotherapy, have been associated with the development of Acute Myeloid Leukaemia (AML), Acute Promyelocytic Leukaemia (APL) or Myelodysplastic Syndrome (MDS). Onkotrone has been associated with the development of secondary AML in humans (see ADVERSE EFFECTS).

Renal Function
Patients with impaired renal failure have not been studied. However, as mitozantrone undergoes limited renal excretion and extensive tissue binding, it is unlikely that the therapeutic effect or toxicity in these patients would be replaced by peritoneal dialysis or haemodialysis. ONKOTRONE should be used with caution in patients with severe renal insufficiency.

Cardiovascular
Cases of functional cardiac changes, including congestive heart failure and decreases in left ventricular ejection fraction have been reported during ONKOTRONE therapy. These cardiac events have most commonly occurred in patients who have had prior treatment with anthracyclines, prior mediastinal radiotherapy or with pre-existing heart disease, indicating a possible increased risk of cardiotoxicity in such patients. It is therefore recommended that regular cardiac monitoring also be performed in these patients, taking into account the
extent to which individual patients have been exposed to these cardiac risk factors.

A small proportion of endomyocardial biopsy reports have demonstrated changes consistent with anthracycline toxicity in patients who had not received prior anthracyclines. Based on current experience, it is recommended that cardiac monitoring also be performed in patients without pre-existing cardiac risk factors before initiation of therapy and during therapy exceeding 140mg/m² of mitozantrone.

In patients with one or more of these risk factors, or in the case of combination of ONKOTRONE with other cardiotoxic drugs, the treatment must be carefully monitored, with regular controls of cardiac function, and adjustment of the dose where necessary.

When a total cumulative mitozantrone dose of 160 mg/m² has been reached in patients with no risk factors, regular control of cardiac function should be carried out.

Patients with cardiac insufficiency generally respond well to supportive treatment with digitalis and/or diuretic agents.

**Hepatic**
Careful supervision is recommended when treating patients with hepatic insufficiency. Although adequate data on the use of mitozantrone in patients with hepatic dysfunction are not yet available, the pharmacokinetic profile suggests that clearance of the drug in such patients may be reduced and dosage may need to be adjusted accordingly (see CONTRAINDICATIONS). ONKOTRONE should be used with extreme caution in jaundiced patients.

ONKOTRONE should be used with caution in patients with severe hepatic insufficiency. Liver function should be monitored regularly before and during treatment.

**Uricacidemia**
Hyperuricaemia may occur as a result of rapid lysis of tumour cells by ONKOTRONE. Serum uric acid levels should be monitored and hypouricaemic therapy instituted prior to the initiation of anti-leukaemic therapy.

**Effects on Fertility**
The effects of mitozantrone on human fertility have not been established. No adequate studies have been conducted in animals to determine the effect of mitozantrone on fertility and irreversible infertility.

**Use in Pregnancy** (Category D)
Australian categorisation definition of Category D: Drugs which have caused, are suspected to have caused or maybe expected to cause, an increased incidence of human malformations or irreversible damage. These drugs may also have adverse pharmacological effects.
There is no information on the use of Mitozantrone in pregnancy. Therefore the drug should not be used in pregnant women or those likely to become pregnant unless the expected benefit outweighs any potential risk.

If the patient becomes pregnant during treatment with mitozantrone, medical consultation about the risk of damaging effects to the embryo associated with the treatment should occur. The effects of mitozantrone can damage the genotype and influence the development of the embryo.

As with other antineoplastic agents, patients and their partners should use effective methods of contraception and be advised to avoid conception for at least six months after cessation of therapy.

It is unknown if mitozantrone can cross the placental barrier.

Use in Lactation
Mitozantrone is excreted in human milk and significant concentrations (18 ng/mL) have been reported for 28 days after last administration. Because of the potential for serious adverse reactions in infants from mitozantrone, breastfeeding should be discontinued before starting treatment.

Paediatric Use
Experience in paediatric patients is limited.

Geriatric Use
Monitoring for toxicities and the need for dose adjustment should reflect the higher frequency of decreased hepatic, renal, cardiac or other organ function and concomitant diseases or other drug therapy in this population

Carcinogenicity/ Mutagenicity,
Animal studies have not demonstrated teratogenic activity due to Mitozantrone treatment. Decreased fetal body weight noted in high dose rats (0.2 mg/kg/day) and an increased incidence of premature delivery noted in rabbits (0.01 to 0.05 mg/kg/day) were attributed to maternal toxicity.

In a lifetime study in rats, there was a possible association between the administration of mitozantrone and the development of malignant neoplasia.

Mitozantrone caused point mutations, DNA damage and sister chromatid exchanges in vitro. Lifetime studies in mice and rats showed no residual clastogenic effect. Mitozantrone did not induce cell transformation in mammalian cells in vitro.

Effects on laboratory Tests:
Animal data suggest that if used in combination with other antineoplastic agents, additive myelosuppression may be expected. This has been supported by available clinical data on combination regimens (see Combination therapy)
INTERACTIONS WITH OTHER MEDICINES

Planned co-administration or sequential administration of other substances or treatments that could increase the likelihood or severity of toxic effects (by means of pharmacodynamics or pharmacokinetics interactions) requires careful individual assessment of the expected benefit and the risks. Patients receiving such combinations must be monitored closely for signs of toxicity to permit timely intervention.

It is recommended that Onkotrone not be mixed in the same infusion with other drugs as specific compatibility data are not available.

Onkotrone must not be mixed in the same infusion as heparin as a precipitate may form.

Onkotrone must not be administered through the same intravenous line as other drugs.

When used in combination with other antineoplastic agents, more potent toxic effects, especially an increased myelotoxic and cardiotoxic effect, are expected.

When used in combination regimens, the initial dose of ONKOTRONE should be reduced by 2-4 mg/m² below the dose recommended for single-agent usage (see DOSAGE AND ADMINISTRATION).

Combination therapy with other cytotoxic drugs and/or radiation therapy has been associated with t-AML and myelodysplastic syndrome.

The immunosuppressive effects of mitozantrone can be expected to reduce the response to vaccines. Use of live vaccines may lead to vaccine-induced infection.

Cyclosporine may reduce mitozantrone clearance rate in patients with AML.

ADVERSE EFFECTS

When used as a single injection every three weeks in the treatment of solid tumours and lymphomas, the most commonly encountered side effects are nausea and vomiting, although in the majority of cases these are mild and transient. Alopecia may occur, but is most frequently of minimal severity and reversible on cessation of therapy.

In patients with leukaemia, the pattern of side effects is generally similar, although there is an increase in both frequency and severity, particularly of stomatitis and mucositis. Nevertheless, overall, patients with leukaemia tolerate treatment with ONKOTRONE well.

Common Reactions

Infections and infestations: Sepsis and infection
Gastrointestinal: Nausea, vomiting and stomatitis and/or mucositis. In the majority of cases these are mild (WHO Grade 1) and transient. These are mostly of mild-moderate severity and transient. In some cases the stomatitis and mucositis may be more frequent and pronounced during the treatment of leukaemia.

Dermatological: Alopecia, most frequently of minimal severity on cessation of therapy.

Haematological: Bone marrow failure, pancytopenia, febrile neutropenia, neutropenia, myelosuppression, especially leucopenia. Thrombocytopenia and anaemia are less common.

Renal: Onkotrone may impart a blue-green colouration to the urine for 24 hours after administration.

Less common reactions

Gastrointestinal: Diarrhoea, constipation, anorexia, gastrointestinal bleeding, abdominal pain, abdominal tenderness and altered taste.

Respiratory: Dyspnoea and interstitial pneumonitis

Local: Phlebitis. Extravasation at the infusion site has been reported, which may result in erythema, swelling, pain, burning and/or blue discolouration of the skin. Tissue necrosis following extravasation has been reported rarely.

General: Hypersensitivity reactions, allergic reaction (hypotension, urticaria, anaphylaxis) has been reported. Fever, fatigue weakness and nonspecific neurological side effects such as somnolence, confusion, anxiety and mild paraesthesia. Tumour lysis syndrome (characterised by hyperuricaemia, hyperkalaemia, hyperphosphataemia and hypocalcaemia) has been observed rarely during single agent chemotherapy with mitozantrone, as well as during combination chemotherapy.

Dermatological: Alopecia, rash, nail disorder, pigmentation and onycholysis.

Hepatic: Hepatotoxicity. Increased liver enzyme levels and elevated bilirubin levels have been reported occasionally.

Renal: Elevated serum creatinine and blood urea nitrogen levels have been reported occasionally.

Ophthalmic: Reversible blue colouration of the sclerae has been reported.

Pregnancy, Puerperium and Perinatal conditions: Fetal growth restriction

Reproductive system and breast disorders: Amenorrhea and Oligospermia

Severe or life-threatening reactions

Cardiovascular: Cardiomyopathy, cardiovascular effects include cardiac failure, decreased left ventricular ejection fraction (determined by ECHO or MUGA scan),
ECG changes and arrhythmia. Congestive heart failure has been reported. Such cases have generally responded well to treatment with digitalis and/or diuretics.

Bradycardia, tachycardia and chest pain have been reported.

In patients with leukaemia there is an increase in the frequency of cardiac events. The direct role of mitozantrone in these cases is difficult to assess, since some patients had received prior therapy with anthracyclines and since their clinical course is frequently complicated by anaemia, fever, sepsis and intravenous fluid therapy.

Haematological: Some degree of leucopenia is to be expected following recommended doses of ONKOTRONE in solid tumours; however, suppression of white blood cell counts below $1.0 \times 10^9$ /L is infrequent. With dosing every 21 days, leucopenia is usually transient, reaching its nadir at about ten days after dosing, with recovery usually occurring by the twenty-first day. Thrombocytopenia can occur and anaemia occurs less frequently. Myelosuppression may be more severe and prolonged in patients with solid tumours, who have had extensive prior chemotherapy or radiotherapy, or in debilitated patients. Acute Promyelocutic Leukaemia (APL) has been reported.

Secondary AML/acute myelodysplastic syndrome (AMS) has been reported following chemotherapy with various DNA topoisomerase II poisons, including mitozantrone. In one study a 5% incidence of secondary AML/AMS was reported after treatment with mitozantrone and methotrexate, mitozantrone was suspected as the causative agent. Features of the AML include a latency period of < three years, short preleukaemia phase and nonspecific cytogenic alterations.

**DOSAGE AND ADMINISTRATION**

The dose should be adjusted to each patient carefully. Doses greater than 140 mg/m$^2$ are not recommended, particularly as a single bolus injection. Such administrations have caused fatal overdose as a result of severe leucopenia and infection.

**Use in Children:** Experience in paediatric patients is limited

**Intrathecal use:** Safety for intrathecal use of mitozantrone has not yet been established.

**Breast Cancer and Lymphoma:**

**Single-agent therapy:**

The recommended initial dosage for use as single agent is 14 mg/m$^2$ of body surface area, given as a single intravenous dose, which may be repeated at 21 days intervals.

A lower initial dose (12 mg/m$^2$ or less) is recommended in patients with inadequate marrow reserves due to prior therapy or poor general condition.
Dosage modification and timing of subsequent dosing should be determined by clinical judgement depending on the degree and duration of myelosuppression. If 21 day white blood cell and platelet counts have returned to adequate levels, prior doses can usually be repeated. The following table indicates a guide to dosing based on myelosuppression for the treatment of breast cancer and non-Hodgkin’s lymphoma.

<table>
<thead>
<tr>
<th>Lowest value (nadir) of leucocytes and thrombocytes (cells/mm(^3))</th>
<th>Time to recovery</th>
<th>Subsequent dosing</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;1500 leucocytes and &gt;50,000 (cells/mm(^3)) thrombocytes</td>
<td>21 days or less</td>
<td>As previous dose, or increase by 2 mg/m(^2) if the degree of myelosuppression indicates that a higher dose can be tolerated</td>
</tr>
<tr>
<td>&gt;1500 leucocytes and &gt;50,000 thrombocytes</td>
<td>More than 21 days</td>
<td>Wait for return to normal, and then as previous dose</td>
</tr>
<tr>
<td>&lt;1500 leucocytes or &lt;50,000 thrombocytes</td>
<td>Any duration</td>
<td>Reduction of the previous dose by 2 mg/m(^2) after recovery of blood counts</td>
</tr>
<tr>
<td>&lt;1000 leucocytes or &lt;25,000 thrombocytes</td>
<td>Any duration</td>
<td>Reduction of the previous dose by 4 mg/m(^2) after recovery of blood counts</td>
</tr>
</tbody>
</table>

**Combination therapy:** Mitozantrone has been given in various combination regimens with the following cytotoxic agents for the treatment of breast cancer and lymphomas: cyclophosphamide, fluorouracil, vincristine, vinblastine, bleomycin, methotrexate (standard dose or 200 mg/m\(^2\) with leucovorin rescue) and glucocorticoids.

For the combination of mitozantrone with other myelosuppressive agents, it is advisable to reduce the initial dose of mitozantrone recommended for monotherapy by 2 to 4 mg mitozantrone/m\(^2\) of body surface area. In further treatment cycles, the mitozantrone dose should be similarly tailored to individual progress and to the duration and degree of myelosuppression.

Long-term survival data for non-Hodgkin’s lymphoma are as yet inadequate to establish comparability between combinations containing mitozantrone and similar combinations containing doxorubicin.

**Leukaemia**

**Combination therapy:** Mitozantrone, together with cytosine arabinoside, has been used successfully for the treatment of both first and second line patients with acute non-lymphocytic leukaemia. For induction, the recommended dose is 10 to 12 mg/m\(^2\) mitozantrone for three days and 100 mg/m\(^2\) of cytosine arabinoside for 7 days (the latter given as a continuous 24 hr infusion).

If a second course is indicated, then this is given with the same combination at the same daily dosage levels but with the mitozantrone given for only 2 days and cytosine arabinoside for only 5 days.
If severe or life-threatening non-haematological toxicity is observed during the first induction course, the second induction course should be withheld until the toxicity clears.

**Paediatric usage:** Experience in paediatric patients is limited.

**Single agent dosage for acute non-lymphocytic leukaemia or chronic myelogenous leukaemia in blast crisis:** The recommended dose for induction is 12 mg/m² of body surface area, given as a single intravenous dose daily for 5 consecutive days (total 60 mg/m²). In clinical studies, with this dosage regimen, patients who achieved a complete remission did so with the first induction course.

Re-induction upon relapse may be attempted with mitozantrone using the same dose regimen.

**Directions for use**

ONKOTRONE vials contain an overage to allow for withdrawal of the required volume.

Mitozantrone should be administered slowly as an intravenous infusion over a period of 15-30 minutes (not less than 5 minutes)

ONKOTRONE should be diluted to at least 50 mL with either sodium chloride for injection or 5% glucose for injection. This solution should be introduced slowly into the tube of a freely running intravenous infusion of sodium chloride for injection or 5% glucose for injection over not less than 3-5 minutes. Administration should be followed with a flush of the appropriate diluent.

If extravasation occurs, the administration should be stopped immediately and restarted in another vein.

**Pharmaceutical Precautions**

Care should be taken to avoid contact of ONKOTRONE with the skin, mucous membranes or eyes. The use of goggles, gloves and protective gowns is recommended during preparation and administration. To reduce the possibility of spillages and splashes when removing ONKOTRONE from the vial, it is recommended that a 20 gauge needle, or one with a narrower bore, be used.

ONKOTRONE can cause staining.

Skin accidentally exposed to ONKOTRONE should be rinsed copiously with warm water and if the eyes are involved, standard irrigation techniques should be used. Equipment and spills on environmental surfaces may be cleaned up by using an aqueous solution of calcium hypochlorite (5.5 parts calcium hypochlorite in 13 parts by weight of water for each 1 part by weight of ONKOTRONE). Absorb the remaining solutions with gauze or towels and dispose of these in a safe manner. Appropriate safety equipment such as goggles and gloves should be worn while working with calcium hypochlorite solutions.

ONKOTRONE does not contain an antimicrobial preservative. Although the preparation itself does have some antimicrobial efficacy, the injection should be used as soon as possible after opening and any residue discarded.
ONKOTRONE must not be mixed in the same infusion as heparin since a precipitate may form. It is recommended that ONKOTRONE not be mixed in the same infusion with other drugs as specific compatibility data are not available.

**OVERDOSEAGE**

**Symptoms**
In the case of acute or chronic overdosage, the observed side effects are amplified including renal, hepatic and cardiac toxicities. The extent of bone marrow depression, at the extreme agranulocytosis accompanied by necrotising angina and critical thrombocytopenia, determines the further course in acute and chronic overdosage.

Ulceration of the mouth and gastrointestinal tract, haemorrhagic enterocolitis with massive bleeding, diarrhoea and persistent signs of renal and hepatic toxicity can occur.

If aplasia of the bone marrow occurs as a result of acute overdosage with mitozantrone, it will, from existing experience, persist longer (approx 3 weeks).

In patients with acute leukaemia, it can result in pronounced stomatitis in isolated cases. Appropriate measures for prophylaxis and treatment should therefore be taken.

In isolated cases, acute cardiac symptoms of different severity are possible.

Toxicity may be delayed and life-threatening eg: myelosuppression.

**Treatment**
A specific antidote to mitozantrone is not known. Mitozantrone is rapidly eliminated from the blood plasma and shows high tissue affinity. Therefore, it cannot be eliminated by dialysis. To counteract agranulocytosis and thrombocyte, granulocyte colony-stimulating factor and thrombocyte concentrates may be necessary.

Haematological support may be required during prolonged periods of bone marrow depression, and infection prophylaxis with antibiotics may be required. The usual supportive measures (maintenance of fluid and electrolyte balance, monitoring of renal and hepatic functions, strict cardiovascular monitoring etc) should be carried out. Every overdosage requires careful monitoring of the clinical findings to identify possible delayed complications.

**PRESENTATION AND STORAGE CONDITIONS**
Vials: 10 mg/5 mL, 20 mg/10 mL, 25 mg/12.5 mL, 30 mg/15 mL.

**STORAGE**
Unopened vials: Store below 25ºC. Do not freeze. Protect from light. Shelf-life: 3 years.
After reconstitution: Potency is maintained for 2 days; however, to reduce microbial hazard, use as soon as practicable after dilution. If storage is necessary, hold at 2-8°C for not more than 24 hours.

**NAME AND ADDRESS OF SPONSOR**
Baxter Healthcare Pty Limited
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**POISON SCHEDULE:** S4

**DATE OF FIRST INCLUSION IN THE ARTG:** 16 January 2001

**DATE OF MOST RECENT AMENDMENT:** 28 August 2015

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