AN IMPORTANT MESSAGE TREATING CANCER

Clinical studies indicate that Ativan\textsuperscript{\textregistered} (lorazepam) Injection can play a significant role in enhancing patient tolerance for and acceptance of chemotherapy.\textsuperscript{1-5} In studies comparing Ativan Injection to other adjunctive agents, patients expressed a strong preference for the regimen including Ativan Injection because of its anxiolytic, amnesic and sedative effects.\textsuperscript{2,4}

The reduction of recall following administration of Ativan Injection was considered by most patients to be not only acceptable, but also desirable.\textsuperscript{1-5} Furthermore, due to its anxiolytic action, Ativan Injection was helpful in relieving the anxiety associated with the stresses of chemotherapy.\textsuperscript{1,4}

NEW ADJUNCTIVE AGENTS NEEDED
A study of 52 mastectomy patients on regimens of cyclophosphamide, methotrexate and 5-FU (CMF) revealed that over one fourth of patients failed to even complete a treatment course of 12 to 18 months, mostly because of the side effects associated with these agents.\textsuperscript{5} A recent survey of 56 oncology centers found up to 10% of patients refused further chemotherapy because of actual or feared side effects.\textsuperscript{7} Statistics such as these have spurred researchers to seek new adjunctive agents or combinations of existing agents that would increase the tolerability of chemotherapy.

ATIVAN\textsuperscript{\textregistered} INJECTION:
A SUPPORTIVE ADJUNCT
In a study involving 18 patients receiving 36 courses of cis-platinum therapy, Ativan Injection was administered prior to therapy. Lack of recall for the chemotherapy infusion, and for the subsequent 8 hours, was reported in 33 of 36 courses of therapy studied. Furthermore, amnesia for the day of chemotherapy was reported in 29 courses. All 18 patients believed the lack of recall was highly desirable.\textsuperscript{5}

Dr. John Laszlo and colleagues from Duke Comprehensive Cancer Center, Durham, NC, and Memorial Sloan-Kettering Institute, New York, reported a pilot study involving 32 patients receiving cisplatin with or without other cytotoxic chemotherapy and adjunctive use of Ativan Injection.\textsuperscript{1} Thirty patients were evaluated over 45 courses of treatment (two were eliminated for protocol violations).

Dr. Laszlo observed that following lorazepam, recall of the day's events was reduced for most patients. Post-treatment anxiety was also reduced. Almost all of the patients in the study requested lorazepam (Ativan Injection) pretreatment again for subsequent chemotherapy courses, regardless of incidence or intensity of emetic episodes. From this study, Dr. Laszlo concluded that lorazepam can be an effective agent for these patients.
A SIGNIFICANT ROLE
IN ENHANCING COMPLIANCE
IN CHEMOTHERAPY

Clearly, Ativan® (lorazepam) Injection represents an important supportive adjunct in chemotherapy. Patients' ability to tolerate the experience is usually enhanced. Their acceptance of a regimen incorporating Ativan Injection has been excellent. Thus, it is felt that many patients who might otherwise abandon treatment may now be more willing to proceed with Ativan Injection as an adjunct in their chemotherapy regimen.

If outpatients are treated with lorazepam injection, care must be taken on the day of treatment to prevent their undertaking any activity requiring full awareness or coordination.

REFERENCES:

Please see important information on the following page.
A(WA green more adult premedicant patient rats, and being recall with recognition AND PARTIAL antidepressants. obstetrical awake or trials optimum effect in inadvertent unsteadiness, failure m laboratory these drugs, rabbits be of surgery and for patients, sleepiness most likely to congenital abnormalities. In adrenal cortex and Djopina, hypotension, hypoxia, stress stages to three coma, and very rare death. Treatment of overdose is mainly supportive until drug is eliminated. Signs and fluid balance. Maintain adequate airway and assist respiratory as needed. With normally functioning liver, low intravenous fluids and electrolytes may accelerate elimination of benzodiazepines. In addition, common dia- retes suppressed postoperative. Hypokalemia are prevented. In (IV) (106/21) of patients, and severe renal and exchange-blood transfusions may be indicated. Published reports indicate that IV infusion of 0.5 to 4 mg/kg/glycine- ingestion drug or other oral route. A dose of 0.1% may be adequate. Although all three drugs are not present in concurrent control group, they have been recorded in human controls. At doses of 0 mg/kg/hr or 0.4 mg/kg/hr and higher, there is evidence of sedation, respiratory depression and respiratory arrest or death which could not be reversed by shorter exposures.

**Intravenous Administration:** Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration whenever solution and container permit. Do not use if solution is discol- ored or if the vial is damaged or if the seal is broken or punctured.

**Immunotherapeutic Identities:** For designated indications as permcue, usual IV dose of lorazepam is 0.05 to 0.2 mg/kg, which is usually administered IV bolus. This dose will suffice for sedation in most adults, and should not be exceeded in patients over 65 years of age. In patients who are particularly sensitive to the effects of lorazepam and are given for patients who are given lorazepam at least 1 hour before anticipated operative procedure. Administer narcotic analgesics at usual preoperative time. There is efficacious drug to make dosage recommendations for lorazepam in patients under 14 years; therefore, such use is not recommended.

**Intramuscular Administration:** For the primary purpose of sedation and relief of anxiety, usual recommended initial IV dose of lorazepam is 2 mg total, or 0.02 mg/kg (0.4 mg/kg), whichever is smaller. This dose will suffice for sedation in most adults, and should not be exceeded in patients over 65 years of age. In patients who are particularly sensitive to the effects of lorazepam and are given lorazepam at least 1 hour before anticipated operative procedure. Administer narcotic analgesics at usual preoperative time. There is efficacious drug to make dosage recommendations for lorazepam in patients under 14 years; therefore, such use is not recommended.
The importance of the “Pap smear” in the clinical detection of cervical carcinoma has obscured the basic investigations that preceded its practical applications.

In 1917, Stockard and Papanicolaou (Am. J. Anat., 22: 225, 1917) described the cyclic changes in the vaginal cell population of guinea pigs and correlated the changes to changes in the reproductive system that indicated estrus. The observations were reiterated in the rat (Long and Evans, Mem. Univ. Calif., 6: 1922) and the mouse (Allen and Doisy, J. Am. Med. Assoc., 81: 819, 1923). The cyclic changes were aborted by ovariectomy and restored by ovarian extracts. These studies provided the essential bioassay method that facilitated the isolation and characterization of estrogenic hormones as well as the identification of vitamin E (see Corner, Hormones in Human Reproduction. Princeton, NJ: Princeton University Press, 1942).

Later, in 1933, Papanicolaou reported his definitive study on vaginal cytology which clearly defined the sexual cycle in the human female (Am. J. Anat., 52: 519, 1933). This work provided to the gynecologist and the clinical endocrinologist a physiologically based, highly useful, and simple technique for the clinical evaluation of ovarian and other endocrine disorders and for the evaluation of drugs affecting the reproductive system.

Charles Rupert Stockard (1879–1939) was born in Mississippi and obtained his Ph.D. degree from Columbia University in 1906, continuing his academic career there until becoming professor of anatomy at Cornell Medical College in 1911. His many contributions were primarily in anatomy, endocrinology, and structural development.

George Nicholas Papanicolaou (1883–1962) was born in Greece, where he obtained his M.D. degree; he received his Ph.D. degree from the University of Munich. He emigrated to the United States and became a member of the Cornell faculty under Stockard. After retirement he headed the Papanicolaou Cancer Research Institute in Miami, FL. It is generally accepted that the vaginal cytology observations of the Stockard-Papanicolaou 1917 report were the contribution of Papanicolaou (see Carmichael, The Pap Smear. Springfield, IL: Charles C Thomas, Publisher, 1973).

Pictured are C. R. Stockard (left) (from Am. J. Anat., 64: 378, 1929) and G. N. Papanicolaou (right) and two plates of vaginal smear cells (from Am. J. Anat., 22: 225, 1917).

We are indebted to Dr. Nicholas L. Petrakis for suggesting the theme and supplying materials and to Dr. Julius Schultz for the photograph of Papanicolaou taken circa 1920 in New York.

M. B. S.
INTERNATIONAL CONFERENCE
ON
THEORIES OF CARCINOGENESIS

Facts, fashion or fiction?


Current paradigms seem to have a heavy impact on research. We have an innate tendency to design experiments that confirm existing beliefs, rather than ones that test, and may disprove, the validity of our concepts. There is an urgent need for those interested in mechanisms of carcinogenesis to discuss among themselves the strengths and weaknesses of presently fashionable paradigms.


More than 25 internationally recognized cancer research workers and a professor of philosophy have agreed to speak.

For further information, contact: The Secretariat, The Norwegian Cancer Society, Huitfeldtsgt. 49, 0253 OSLO 2, Norway.