

sedatives. The decision takes effect in six months. The daytime sedatives generally contain antihistamines, which make people drowsy, but the FDA says there is no evidence that drowsiness helps relieve anxiety. A few also contain scopolamine or bromide, which FDA considers unsafe or ineffective in sedatives.

- The most widely used color additive, Yellow No. 5, must be identified in the ingredient list on the labels of foods and drugs, according to an FDA ruling. Yellow No. 5, also called tartazine, is the first color required to be listed by name.

"Yellow No. 5 poses a particular hazard to some people, but is generally safe for use by the majority of the population. This requirement will enable those who are allergic to Yellow No. 5 to know which products contain it," Kennedy explains. The FDA estimates that as many as 100,000 persons in the United States are allergic to Yellow No. 5; most of those persons are also allergic to aspirin. The ruling takes effect June 26, 1980, for drugs and July 1, 1981, for foods.

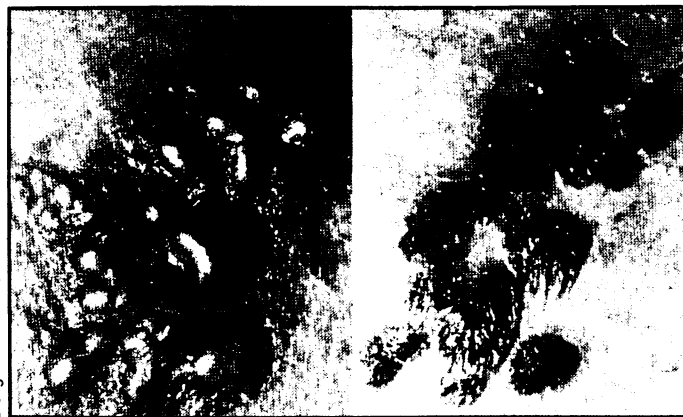
- The FDA proposed a requirement for prescription drugs to be packaged with a pamphlet of information to the patient. The pamphlet would describe proper use of the drug and any dangers and side effects. The agency plans to develop possible wording for the pamphlets for about 50 drugs initially and then to require manufacturers to develop and print the final package inserts. Agency officials expect preparing the written material for common tranquilizers and potent antibiotics to have top priority. They estimate it will take as long as 5 years before pamphlets will be included with most of the 375 basic drugs. The FDA already requires patient package inserts for IUD's, hearing aids, estrogens for menopausal women and birth control pills.

- As of July 1, labels of ice cream and most other frozen desserts must carry a list of ingredients. The desserts had previously been exempted from labeling rules on grounds that their ingredients were standard. The new regulation, proposed months ago, affects covered products sold in interstate commerce. □

Shuttle delay confirmed

The first orbital flight of the space shuttle had been scheduled for March, then June, then September of this year, and for several months the target has been Nov. 9, though even that date has drawn skepticism from inside and outside the National Aeronautics and Space Administration. Now the additional delay has become official, as NASA administrator Robert Frosch last week told the House Subcommittee on Space Science and Applications. There is only a 20 percent chance of a launch by the end of next March, he said, and he placed the probability of even an end-of-June launching at 50-50. □

A promising treatment for herpes



Genital herpesvirus sores (left) become dramatically smaller (right) after four days of two-deoxy-D-glucose therapy.

An Alabama allergist recently reported an unexpected yet promising form of treatment for genital herpes, a widespread venereal disease that currently has no cure and that can cause fetal death and may cause cervical cancer. The treatment was under-the-skin injections of commercially available flu vaccine (SN: 6/9/79, p. 375). Now another possibly even more effective treatment for genital herpes is reported in the June 29 *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* by Herbert A. Blough and Robert L. Giuntoli of the University of Pennsylvania School of Medicine in Philadelphia. It is an experimental drug called two-deoxy-D-glucose.

For 20 years this compound has been known to interfere with herpes virus multiplication in laboratory experiments. But no one had explored its antiviral activity clinically until Blough and Giuntoli did so. They selected 36 women with suspected genital herpes infections, proved by viral isolation or viral antibody studies that the patients truly had genital herpes, then gave half of the women two-deoxy-D-glucose topically or intravaginally and the other half a placebo for three weeks.

Patients with initial herpes infections treated with two-deoxy-D-glucose experienced rapid relief (within 12 to 72 hours) of genital pain and pain during urination, the two most common symptoms of female genital herpes. In patients who received the placebo, herpes symptoms lasted from eight to 10 days. Herpes lesions lasted about four days in patients given two-deoxy-D-glucose, but 15 days in patients given the placebo. The drug was similarly effective on patients with recurrent genital herpes.

During a two-year follow up, there were only two recurrences among patients with initial herpes infections treated by two-deoxy-D-glucose (an 89 percent cure rate). Among the two-deoxy-D-glucose-treated patients with recurrent infections, 90 percent showed improvement, such as less-frequent recurrences, fewer lesions or shortened duration of symptoms. None of the patients experienced adverse side effects from the drug.

"Two-deoxy-D-glucose provides a simple and unique approach to treatment of genital herpesvirus infections," Blough and Giuntoli conclude. Blough believes that the Food and Drug Administration might approve the drug for commercial use as early as a year or two from now. □

Winter life under the Arctic ice pack

As conventional sources of oil dry up, human beings are driven to increasingly remote, sometimes dangerous, regions of the earth in search of more crude petroleum. The Arctic ice pack is one of the areas being probed as a potential source of fossil fuels. But to whom — or what — would offshore oil and gas development there pose the greater danger: human or marine life?

Ocean experts have suspected that it is difficult, if not impossible, for undersea organisms to survive the winter months beneath the ice pack, when above-ice temperatures dive to minus 35 degrees F (with wind chill factors to minus 100) in near total darkness. Still, scientists know that some species do survive "because we would find them again every summer," says David Norton of the National Oceanic and Atmospheric Administration's Outer Continental Shelf Environmental Assessment Program (OCSEAP).

"But we figured that these stocks could only make it through the winter by retreating to deep, offshore waters in the fall," he says, "where they would not be bothered by the freezing downward of sea ice, or by the disruption from gouging of the seafloor by keels of moving sea ice." If this were so, oil and gas drillers on the ice pack would appear to have relatively few worries about adversely affecting marine life during the winter.

But a study team led by Norton now reports no such winter migration — on the contrary, the scientists found that some organisms not only remain but actually seem to thrive on the harsh winter condi-

tions beneath the ice pack. The study, an examination of conditions below ice packs in the Beaufort Sea near Prudhoe Bay, was conducted from last November through this May. The research "was intended to plug major gaps in scientific understanding of the life forms and cycles of the Beaufort Sea, and how these could be affected by offshore oil and gas development there," according to NOAA.

With the severe conditions limiting dives to a maximum of 45 minutes, dry-suited diver/scientists placed current meters under the ice, sampled sediments and searched for various species and their eggs and larvae. "No one else had looked at this ecosystem systematically in winter," Norton says. "We needed to know whether it's advisable to dump drilling muds and cuttings, for example, into the water column or out on the ice, or whether this material must be hauled ashore."

These results indicate that whatever the technique used, there *is* a functioning ecosystem under the winter arctic ice that would be vulnerable to disruption by technology.

"Ecologically, we need to know more about the overwintering organisms so that

we don't let environmental changes tip the balance against them during what may be the most difficult period in their annual cycle," says Norton, who is based in OCSEAP's Arctic Project Office in Fairbanks, Alaska. One study area that appears to be particularly at risk is "the boulder patch," an undersea field of rock formations serving as home to maverick communities of kelps, soft corals and other organisms hundreds or thousands of miles from their nearest kin. A major problem if and when oil exploration begins would be to find a way to protect such a sensitive biological formation. "Pollution, however mild, could obliterate this community, and changes in seafloor sediment movement could bury the boulders forever," according to NOAA officials.

With data from this and future studies, the NOAA-sponsored team hopes to determine the physical conditions for survival, food requirements, energy use and overall winter activity level of fishes and other species. One part of the research — to continue over the next two years — will examine the spawning patterns of the Arctic cod, a key figure in the ecology of the Beaufort Sea. □

Now there's placebo abuse

Drug abuse is a well-known phenomenon. But what is not so well known is that many physicians and nurses abuse placebos (fake medicines) because they do not appreciate the power of placebos to relieve pain and they do not know which patients are best helped by placebos. This surprising fact is reported in the July *ANNALS OF INTERNAL MEDICINE* by James S. Goodwin, Jean M. Goodwin and Albert V. Vogel of the University of New Mexico School of Medicine in Albuquerque.

Past studies have shown, contrary to what one would think, that placebos have great power to relieve pain whether it is of psychological or organic origin, and that those persons who respond best to placebos are self-sufficient, highly educated persons who tend to be stoic in the face of pain and who are apt to cooperate with medical personnel in the control of their pain (SN: 7/12/75, p. 20; 3/20/76, p. 182).

The Goodwins and Vogel, however, had the impression that physicians and nurses generally believe that placebos only relieve psychological pain and thus give them to hypochondriacs and malingerers rather than to those patients who can best profit from placebos. The researchers surveyed 60 physicians and 39 registered nurses at two university teaching hospitals and found that most physicians and nurses greatly underestimate the percentage of patients who experience pain relief when given placebos. Most physicians and nurses also give placebos to problem patients who demand excess pain medications because they believe that placebos will reveal whether the pain is psychological or organic, and reason that if the patients' pain is judged to be psychological, it does not deserve "real" treatment.

Subsequent interviews with some of the physicians and nurses surveyed reinforced the above results. A senior resident declared, "Placebos are used with people you hate, not to make them suffer, but to prove them wrong." One physician said he had given a placebo to an alcoholic because "we didn't think the patient was worthy of 75 mg of Demerol." A nurse decided to give a placebo to a low-back pain sufferer because he had not been helped by an array of pain pills, and when the patient fell asleep, the nurse concluded that the placebo had helped the patient and his pain was psychological.

So it appears that many physicians and nurses greatly underestimate the percentage of patients who experience pain relief when given placebos and fail to realize that overdemanding and complaining patients are, if anything, less likely to respond to placebos than are patients well liked by the hospital staff. Yet it is the hypochondriacs and malingerers who are most likely to get placebos. □

Can the Tall Ships return?

Is it possible that the large merchant sailing ships that graced the second half of the nineteenth century are about to gain a second wind and a new lease on life? A growing band of naval architects believe not only that they can build a much better sailing ship than did their Victorian ancestors, but also that rising costs of fuel and machinery in diesel ships have now made sail power very attractive economically.

Earlier this month scientists and naval architects gathered at the Royal Institution of Naval Architects in London to subject these ideas to critical scientific scrutiny. The great merchant sailing ships, which reached 300 feet overall in size, were killed off finally in the 1920s by the recession and by very cheap diesel fuel. In a study of these ships, A.D. Couper, P.B. Marlow and J. King of Cardiff University of Wales Institute of Science and Technology have concluded that they were very efficient indeed, being the culmination of perhaps 5,000 years of sail evolution. The best were those fitted with an auxiliary motor to help out during calm days. The *Great Britain*, built in 1859, once averaged 13.6 knots during 30 days under sail alone, and regularly averaged over nine knots during the round trip from London to Melbourne, Australia.

In fact, smaller merchant sailing ships flourish almost everywhere in the world even today. Only in North America, Europe and on the deep sea routes are diesel and steam shipping the norm. Modern materials, equipment and design should allow the large sailing ship to make a comeback. The detailed plans for one such vessel al-

ready exist. Captain Mike Willoughby, a freelance consultant naval architect, has outlined for a \$12 million, 482-foot-long, five-masted barque *Windrose* that serve to illustrate the benefits. The ship would have sophisticated weather and navigation devices, stabilizers and a computer to control and trim the forty driving sails. The ship is all metal with steel masts and cables and would complete the Australia run in about 45 days, compared with the 35 days taken by modern diesel shipping. The ship would carry 12,000 tons of cargo and the running costs would be one-fifth less per ton than diesel shipping. The ship's main costs would be salaries of the officers and crew, with estimated annual fuel costs for the auxiliary motor only ten percent of a motor ship's. The more fuel prices rise, the more competitive such designs become.

The clear consensus at the meeting was that modern technology could indeed build a reliable sailing merchant ship that was economically very attractive. Delegates saw no problems in recruiting crews, but two big difficulties remain. The giant new ships would be as vulnerable as their predecessors when clawing out to sea in the face of a heavy gale and would remain unhandy in confined waters. But the most important problem is the shipping industry's inertia in trying new technology. Only moderate interest has so far been shown in designs by Willoughby and others. The rising price of bunker oil and the industry's reluctance to use nuclear-powered ships, however, could be the deciding factors that force a return to the days of sail. □