

OPHTHALMOLOGY

Prevent Babies' Sore Eyes

► **PENICILLIN OINTMENT** is "the most efficacious, the safest and the least irritating" substance for preventing gonorrheal eye disease in newborn babies.

Laws and board of health regulations should, where necessary, be changed to permit use of this drug in hospitals when the doctor prefers it to other preventives.

These conclusions and recommendations on a recently controversial subject are reported by Dr. H. H. Davidson, Miss Justina H. Hill and Dr. N. J. Eastman of Johns Hopkins University and Hospital, Baltimore, in the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* (April 7).

Silver nitrate has for generations been the standard drug used to prevent gonorrheal eye disease, known also as babies' sore eyes and ophthalmia neonatorum. Its use is required by law in some states. When penicillin's ability to stop the gonococcus and cure gonorrhea was discovered, doctors naturally wondered whether it would not be as good as or better than silver nitrate for preventing gonorrheal infection in babies' eyes.

The question became a matter of controversy which may be settled by the report of studies supported by the U. S. Public Health Service.

The studies included more than 13,000 newborn babies. Over 9,000 of them got shots of penicillin into the muscles immediately after birth. Not a single case of gonorrheal eye infection developed.

For another 4,163 babies, shots of penicillin, silver nitrate eye drops and penicillin eye ointment were used in rotation. All babies born one week got the penicillin shots, all born the next week got the silver nitrate drops, and so on. Signs of local irritation, such as redness, swelling or discharge, developed in 10.6% of the penicillin ointment group, in 13.8% of the

penicillin shots group and in 48.7% of the silver nitrate group. This is in keeping with the general experience that silver nitrate produces chemical irritation in a high percentage of cases, the scientists point out.

Penicillin ointment is easy to use and costs about the same (3.4 cents per baby) as the silver nitrate wax ampules (4 cents per baby). The silver nitrate ampules are preferred to drops prepared at hospitals because of less danger of error in their preparation.

Penicillin ointment is not recommended for routine use in home births because it should be kept refrigerated and because busy doctors might forget to check the expiration dates on the tubes.

Science News Letter, April 14, 1951

CHEMISTRY

Synthetic Fruit Made To Better Drying Methods

► **SYNTHETIC FRUITS** and vegetables have been made by University of Delaware chemists, not for eating but for experiments in dried food.

The natural texture and appearance of dried fruits and vegetables as well as their flavor, are important when they have water added to them. Real food was too complex for the role of various materials in them to be disentangled.

For this reason George L. Baker, John F. Kulp, and Ralph A. Miller put together pure cellulose, fruit acids, salts, sugars and pectins to form simulated food for drying experiments. They reported to the American Chemical Society meeting in Boston that pectins, the gelling substances in fruits and vegetables, are the most important class of materials in promoting the swell-

ing of the dried product when it is heated with water.

If the pectins in the synthetic fruit mixtures were altered by enzymic action before drying, the dried mixtures would swell better upon adding cold water. The pectins were changed to what are called low-methoxyl pectins. This promises to be of practical importance in preparation of dried food for military and other uses.

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