- Extended action or conventional oral dosage forms of pentaerythritol tetranitrate, trolnitrate phosphate, and mannitol hexanitrate – alone or in combination with other drugs – are "possibly" effective for the treatment or prevention of anginal attacks.
- Sustained action nitroglycerin tablets are "possibly" effective for the treatment or prevention of anginal attacks.

At this point, it is well to restate what these NAS/NRC ratings mean. *Probably effective* signifies that *for a particular indication,* the available evidence indicates that a drug probably accomplishes its proposed effect, but that additional evidence is required before the drug can be deemed "effective" beyond reasonable doubt. *Possibly effective* signifies that little evidence of effectiveness *for the given indication* has been obtained. The possibility that adequate supporting evidence might be developed should not be ruled out, however.

FDA recognizes that these drugs are widely regarded by physicians as safe and useful in the management of angina pectoris in some patients. It also recognizes the difficulty of designing and executing controlled clinical studies for anti-anginal drugs. For these reasons, the Agency will allow manufacturers sufficient time to complete the required studies and the drugs will continue to be marketed during that time. FDA will keep physicians informed as the studies develop.

On the basis of the NAS/NRC panel's conclusion, physicians may wish to reevaluate the role of long-acting coronary vasodilators for their patient.

NITROGLYCERIN PACKAGING AFFECTS POTENCY

A recent FDA assay survey of nitroglycerin tablets suggests that improper packaging has a crucial bearing on the drug's stability and potency.

The assay involved nitroglycerin tablets stored in a pen-shaped plastic container provided by pharmacies as a convenient means of carrying several days' supply. Dispensers containing the drugs were left standing at room temperature for 1-, 2-, and 3-day periods.

The nitroglycerin was found to have decreased to about 50%, 30% and 20% of initial potency after being left in the dispensers for these periods. FDA has requested recall of the dispensers.

The assay led FDA to conclude that unexplained patterns of therapeutic response by patients to nitroglycerin therapy may be caused by the manner in which the drug is packaged. Physicians should consider this possibility when evaluating patient response to the drug.

To avoid rapid loss of potency, nitroglycerin should be kept at all times in tightly-sealed glass vials. Physicians and pharmacists may wish to tell patients this when prescribing and dispensing the drug.

CAUTION ADVISED IN USE OF IRRIGATING FLUIDS

Recent bacteriologic sampling programs of commercially produced irrigating solutions with screw cap closures have revealed microbial contamination of the glass thread area and the cap components in some of the lots tested. Occasionally, the fluids themselves have been found to be contaminated. No human health problems have been reported.

The FDA is now working with the manufacturers of these products to develop a closure system which can be used for such fluids and which will be free of this potential problem. Physicians and hospital personnel will be kept advised.

In addition to usual aseptic technique, the following precautions are recommended when using such solutions with screw top closures:

- Do not use intravenously;
- Do not strike bottle caps to open; discard if not opened easily;
- Do not replace caps;
- Use solutions immediately on opening. Discard unused portion.

FDA TO EVALUATE O-T-C DRU