facturer. Example: Spinal anesthetics are purchased by brand name; the brand is changed only on the recommendations of the anesthesia department.

On occasion, noncritical drugs are also specified by manufacturer because of previous experience in obtaining ineffective drugs when

generic equivalents were used.

Mr. Gordon. May I interrupt at this point? In these cases, did you attempt-I mean, did the hospital attempt-to determine whether those ineffective generic drugs, in fact, met the USP or national for-

mulary standards?

Dr. McCarron. Yes. I will give you an example of that. We bought generic thyroid hormone. The USP standards for thyroid hormone are based on the iodine content which should have a relation to the hormone content. We started using drugs that had met our specifications. Of course, we had no way of doing biological assays on this.

After this generic thyroid hormone was in use in the clinic, the physician in charge of our thyroid clinic came in and told us there was something wrong with the medicine. People who had been wellcontrolled on two grains of thyroid a day were now taking three, four

or five grains and were slipping out of control.
On the basis of this, and he had at least 30 cases to show us, we pulled all the generic thyroid out, and we substituted it with the

Armour brand thyroid.

After we started using Armour, these patients went back to their two grain dose and we therefore said that we did not want to take any chance like this again. We know that Armour works, and we know that we have no way of evaluating the other preparations of thyroid and that the iodine is not an accurate evaluation. Therefore, we have

specified only Armour brand thyroid.

This has not been a significant problem; the hospital purchases less than 50 drugs by brand name, and most of these are low-use items. But I would like to say that some of these things that we buy by brand name are mainly used in critical situations. The cardiac glycosides, which are used for treating a patient with a severe condition where his life is threatened are very important, especially if you are giving this medication intravenously. We want to have standard medicines that the doctors are familiar with, and we just buy them from one company so that he always knows what he is giving.

IV. VALUE OF MANUFACTURING CERTAIN ITEMS AT THE LOS ANGELES COUNTY GENERAL HOSPITAL

The pharmacy at the Los Angeles County General Hospital manufactures many items for use within the hospital. This is not a commercial business. The manufacturing division was established to decrease the cost of pharmaceutical supplies, to provide better service, and to aid the physician in the initiation of new treatment programs.

Eighty-five percent of the intravenous fluids used at the Los Angeles County General Hospital are manufactured by the hospital pharmacy; 15 percent—or that amount used by the pediatric division—is purchased from commercial vendors on a bid basis because pediatric solutions are needed in small sizes and requires special bottles.