population studied here, no liver metastasis was large enough to appear as a cold lesion. Among the first patients studied with iodine-123- (^{123}I) labeled anti-CEA MAb fragments (*2*), we have observed photopenic areas in the presence of very large metastases, at least at 6 (and eventually 24) hr, but even in these patients the tumors showed uptake of MAb fragments at 48 hr.

In patients with no definite diagnosis of recurrence, we have demonstrated that RIS was able to identify 16/38 (42%) tumor sites, which could not be detected by other methods during the concomitant diagnostic work-up. Among these 16 lesions, there were 7 liver metastases and 6 local recurrences, as well as 2 lung and 1 peritoneal involvements. This seems to answer your second question. In our opinion, the present clinical value of RIS in colorectal carcinoma lies mainly in the early detection (and confirmation in case of equivocal US or CT studies) of local recurrence. To this may be added the early diagnosis of liver metastases when RIS is performed with ^{123}I labeled MAb. Our own experience with the ^{99m}Tc-labeled anti-CEA MAb BW 431/26 (*3*) is comparable to your results. We also observed excellent detection rates in primary tumors and local recurrences but did not obtain reliable data in the detection of liver metastases. With ^{99m}Tc BW 431/26 (intact MAb), we recovered in one patient 0.0001% of the injected activity (ID) per gram of liver tumor which had been resected at 24 hr. In patients studied with the ^{123}I-labeled anti-CEA MAb 25, administered as F (ab')$_2$ fragment, the order of magnitude of activity recovered in liver metastases was 0.01% ID/g.

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Starport Digital Gamma Camera

TO THE EDITOR: A recent issue of *The Journal of Nuclear Medicine* contains a report by Freitas et al. on a problem that had appeared in a Starport 500A digital camera system manufactured by General Electric Company.

The "chronology of events" recounted by the authors was accurate as far as it was reported. However, the cause of the problem was subsequently identified and its successful resolution did occur. Furthermore, the authors themselves played a key role in this successful resolution.

The first Starport digital gamma camera was installed in December 1985. More than 200 systems were in service and functioning satisfactorily when the authors notified GE about an intermittent occurrence of a display of the name of one patient with the image of another. Since this effect had been reported only by the authors' institution, it was at first believed to be the result of a hardware malfunction. After repeated unsuccessful attempts to locate the source of the problem, the entire electronics console was replaced. The paper reports that since then (i.e. April 27, 1988), ". . . the problem of switching images and patient identification text has not been observed."

The paper failed to recount subsequent developments. In May 1988, the same problem did recur, but this time a sequence of actions was identified that enabled the GE software engineers to isolate a "bug" in the management of the image memory. A revised release, provided to the authors' institution on August 4, 1988, was tested and found to have successfully resolved the problem. After further thorough testing of the new software release (designated Starport Release 4.4), it was sent to *all* Starport installations in December 1988. The release included a detailed description of the problem and its resolution.

It must be noted that even though the *Journal*'s paper was not submitted until December 1988, and later revised in April 1989, the authors chose not to include a description of the events since May 1988: namely, GE's isolation of the problem, its resolution, the validation of the solution at the authors' institution, and distribution of updated software to all users of these systems.

The lesson of all this is clear. Although GE, like other vendors, devotes considerable efforts to validating its software, some residual "bugs" may go undetected. Both hardware and software malfunctions occasionally occur. Vendors have an obligation to expeditiously work with users to bring matters such as this to a successful conclusion, which will be beneficial to the patients and to other customers.

GE thanks the authors for bringing this problem to its attention and for the confidence they expressed in GE nuclear medicine products by ordering two additional systems.

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REPLY: Dr. Bernstein takes us to task for failing to continue the narrative past April 27, 1988. In May 1988, the problem of mismatched displays did recur, but modifications of the imaging protocol did not allow us to record the image on film. Thus, there was no possibility of observer misinterpretation of clinical images. Dr. Bernstein goes on to classify the image switching problem as a software malfunction that was corrected in subsequent Starport software (Version 4.4) releases received in December 1988. This information (sent in a *"Dear Customer"* letter despite our many contacts) was not brought to my attention prior to approving our April 1989 revision.