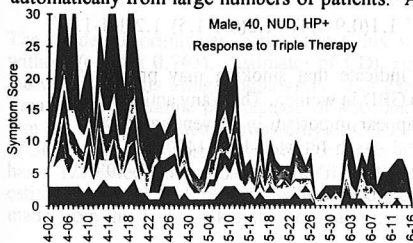


- **THE INFLUENCE OF MUSIC, STAFF CHATTER OR SILENCE ON PATIENTS UNDERGOING GASTROSCOPY** N. Levy, E. Sterner, R. Manassa. Department of Gastroenterology, Bnai Zion Med. Ctr. Faculty of Medicine, Technion, Haifa, Israel.

Gastroscopy is still an unpleasant procedure and various means to alleviate the suffering of the patients are justified. Pharmacological sedation for this purpose is universally accepted. However, as the majority of patients do not fall asleep during the procedure, an agreeable atmosphere in the endoscopy room might be of benefit. The aim of this study was to investigate the influence of music and of chatter among the staff, on patients undergoing gastroscopy. **Methods:** 221 consecutive patients (aged 20-80) undergoing upper gastrointestinal endoscopy were randomly allocated to the following 4 groups: **Group A:** (50 patients) Background light classical music was played, while the staff performing the gastroscopy talked about the patient (his complaints, the reason for doing the endoscopy, etc). **Group B:** (53 patients). The same background music was played, but the staff chattered about subjects unrelated to the patient. **Group C:** (49 patients). The same background music was played, but the staff refrained from talking. **Group D:** (47 patients). Complete silence was observed during the entire procedure. Patients were premedicated with 10 mg diazepam, or 5 mg if older than 70. All subjects were interviewed 2 hours after the examination and when quite alert; the interviewer was unaware of the conditions under which the examination was performed. The four groups were comparable in respect to gender, age, marital status, ethnic origin, and extent of school education. **Results:** only 57 of patients who had background music played (groups A,B,C) remembered hearing it. On the contrary, 98% of patients who had no background music (group D), recalled this fact correctly. However, complete silence was falsely claimed by 118% of patients in group A, by 23% in group B, and by 59% in group C. Background music was preferred to complete silence in all 3 groups who experienced it. Those who were exposed to complete silence (group D), preferred it to having background music and/or background chatter. Patients of groups A,B, and C were indifferent towards staff chatter; however, there was a marginal preference ($p < 0.06$) for the patient himself being the subject of the conversation. **Conclusion:** It seems that patients adapt easily to the existing conditions in the endoscopy room. Neither background music nor chattering had any significant influence on the patient. These findings may suggest that a free hand be given to the endoscopy staff to behave during the examination as they like. In this respect gastroscopy may serve as a prototype for short invasive procedure performed under mild sedation.

- **THE AUTOMATIC PATIENT SYMPTOM MONITOR (APSM), A VOICEMAIL SYSTEM FOR CLINICAL RESEARCH.** B.J. Marshall, S. Hoffman, R.W. McCallum. Div. of Gastroenterology, University of Virginia, Charlottesville, VA.

The daily diary cards we use to monitor symptoms in clinical trials are tedious for patients and labor intensive for study monitors to retrieve and interpret. To address this problem we have devised the "Automatic Patient Symptom Monitor" (APSM), a voicemail computer which calls patients every night at home and administers a questionnaire. **AIMS:** To see if APSM could collect data reliably, over a long period, and be tolerated by patients. **METHODS:** Patients with chronic dyspepsia who could be contacted by telephone were asked to select appropriate questions from a panel of 10 (e.g. belching, heartburn, nausea, antacid use) and were then given a training session over the phone. APSM then called patients every night. Patients also completed daily diary cards for five days. **RESULTS:** Of 16 candidates 3 refused and 5 did not have touch-tone phones. Valid data was received for 34 APSM days and 30 diary days (one diary was not mailed in and one was completed from memory). Data received was statistically identical for the two methods. 8 other patients monitored by APSM for 120 days were able to provide valid data on >80% of days and APSM data reflected the clinical status of the patients when seen at a follow-up visit. A typical output chart from APSM is shown. **CONCLUSION:** APSM may be an easy way to collect clinical data automatically from large numbers of patients. APSM provides a time



and date-stamped record of symptoms and bypasses both the diary card and data entry steps normally required in clinical research.

- **DISCREPANCY IN ASSOCIATION BETWEEN GASTRIC POLYPS AND GASTRIC ADENOCARCINOMA**

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The prevalence of gastric adenocarcinoma in patients with gastric polyps has been reported to be 0-75%. To determine the association between gastric polyps and gastric adenocarcinoma, all cases of polyps diagnosed in the last 10 years and all gastric cancers diagnosed in the last 3 years at our institution were reviewed. A total of 81 patients (pts) with gastric polyps were identified, of whom biopsy confirmation was available in 68 pts; 41 were male and 39 were female. The average age was 73 yrs (31-96). The diagnosis was initially made by UGI series in 24, EGD in 54 and by laparotomy in 3. The polyps were solitary in 30 pts and multiple (more than 10) in 12 pts. They were located in the fundus in 13, body in 27, antrum in 31 and diffuse in 11 pts. 50 pts had hyperplastic polyps, 5 had adenomatous polyps, 3 had mixed adenomatous and hyperplastic polyps, 10 had inflammatory polyps and in 13 pts biopsy results were not available. Only one case of adenocarcinoma along with hyperplastic polyps was found among these 81 pts. Follow up data was available in 37 pts. Average duration of follow up was 37 months (6-95). None of the pts had developed gastric carcinoma during their follow up period. 75 pts diagnosed with gastric cancer who had either endoscopy or gastrectomy at our institution were reviewed. Endoscopy reports were available in 32 pts, pathology reports in 16 pts and both in 27 pts. Five cases of gastric polyps were identified among this group of 75 pts. One had hyperplastic polyps, two had villous adenomas and in two other cases the histology was not available. We found only 1 cancer in the group of gastric polyp pts over a period of ten years. On the other hand, we found five cases of gastric polyps in association with gastric cancer in just a three year period. The discrepancy in association rates of gastric polyps and carcinomas is most likely secondary to selection bias. This may explain the wide variability found in the literature.

- **THE IMPACT ON HOSPITAL RESOURCE USE OF A LIVER TRANSPLANT SERVICE.** L.F. McMahon, M.R. Lucey, J.A. Rosevear. Department of Internal Medicine, The University of Michigan, Ann Arbor, MI.

While much is known about the type and quantity of resources required to perform liver transplantation, little is known about the impact of a transplant service on total hospital resource use (length of stay-LOS, and ancillary services). It has been argued, given the severity of illness of transplant candidates, that they would be more costly compared to other patients in the same DRGs (Hepatology 1986;6:1436-38). To address this question, we identified all patients who were presented at our transplant committee meeting, regardless of the outcome of the committee's decision or whether they went on to have a transplant. We then compared the resource use of this group of patients (LIVER) to other patients admitted to the same DRGs (Control). (Note: The actual transplant admission has been eliminated in all comparisons as there is no suitable control group). Ancillary service use is measured in relative value units (RVU). The RVU eliminates much of the distortion induced by a hospital's cost accounting system in its allocation of overhead cost (Ann Intern Med 1989;111:318-26). To compare the LIVER patients to representative controls, we weighted the LOS and RVU values of the control DRGs to reflect the case-mix of the LIVER patients. Finally, we evaluated only LOS inlier patients to assess the most representative subset of LIVER patients and controls.

Medical Admissions - LOS inliers

	Admissions	Adjusted Mean LOS	Adjusted Mean RVU
LIVER	456	5.4	1358
Control	24,422	5.8	1544

Surgical Admissions - LOS inliers (transplant admission excluded)

	Admissions	Adjusted Mean LOS	Adjusted Mean RVU
LIVER	479	5.0	2213
Control	8490	5.1	2036

These results demonstrate, for medical admissions, that LIVER patients had a lower than expected mean LOS and RVU utilization. For surgical admissions there was a slight increase in ancillary use for LIVER patients. When the analysis was repeated including resource outliers, the same relationships held. These data demonstrate that a transplant program does not place undue resource requirements on hospitals beyond those identified with the transplant itself.