SURVEILLANCE OF PATIENTS WITH DIARRHOEAL DISEASE COMING TO THE ICDDR, B.HOSPITAL, DACCA, BANGLADESH

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In October 1979, a surveillance system was set up at the ICDDR,B Hospital to study a 4% systematic sample of the 100,000 patients who come to the hospital for care each year. A special surveillance team interviews every 25th patient who comes to the hospital and collects uniform information on demographic factors, recent medical history, symptoms of this illness, and therapy given. A physical examination is performed by a physician and a stool sample is obtained for culture and microscopic examination. Stools are cultured for Salmonella, Shigella, Campylobacter and Vibrio. E.coli isolates are tested for toxin production and rotavirus is identified by enzyme-linked immunosorbent assay. If a patient is admitted to the hospital information on hospital course is collected as well.

From December 1979 through November 1980, 3550 patients were studied. Enterotoxigenic E.coli (ETEC) was the most common enteropathogen isolated in all age groups (isolation rate, 200/1000), followed by rotavirus (194/1000) and Shigella and Campylobacter (both 116/1000). Children 2 years of age and younger were at increased risk for infection with rotavirus (304/1000), ETEC (211/1000) and Campylobacter (167/1000). While males came to the clinic more frequently than females, there were no significant sex differences in isolation rates of the different pathogens. Each pathogen had a distinct seasonal pattern. ETEC was most commonly isolated in spring and early summer, rotavirus in fall and winter, shigella in winter and spring and campylobacter in spring. V.cholerae showed the most marked seasonal pattern, with greatest isolation from September through December.

The presenting signs and symptoms, age distribution and severity of illness of patients with diarrhoeas of different etiologies are being examined to set up simple criteria for diagnosis and treatment. This basic surveillance system has been useful in generating new ideas for research and has been linked to other specific projects.

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