Computers in the neonatal intensive care unit

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Clinical medicine has witnessed unexpected challenges in the recent years. Technological advances have resulted in increased reliance on investigation and gradual demise of routine physical examination.\(^1\) In a recent report, it was observed that attendings spend only one tenth of their time in the daily bedside rounds.\(^2\) Bedside rounds, being the tradition of medicine, have many benefits. It is a better teaching model and is more in line with the educational needs and clinical training requirements.\(^3\) It results in development of rapport with patient or staff (physicians, nurses, respiratory therapist, clinical pharmacist, dietician, and so forth). It is an ideal model for team interaction. The learning of clinical and communication skills are better attained and reinforced during the bedside rounds. Despite these advantages, daily bedside round has been viewed to be less feasible in intensive care settings. The potential hurdles are: the space requirements are different in neonatal intensive care unit (NICU)–equipments/monitors, risk of increase in the noise level and overcrowding. More faculty time is spent with potential patient/attendant (NICU) discomfort. Also to consider is the Health Insurance Portability and Accountability Act (HIPPA) policy. The advancement in the medical technology and increased use of informatics in the hospitals has resulted in a decline in the concept as well as actual routine of bedside rounds.\(^4\) With the availability of online laboratory and radiological retrieval systems at a remote terminal, ‘work room rounds’ or ‘sit-down rounds’ have emerged as a probable alternative. It is felt to be more feasible to do rounds in the room where all information related to the patient could be reviewed at the same time. This approach would not only be less time consuming but also be user-friendly. The use of tele-round (video-conferencing) and remote communication has shown to be a practical alternative to bedside rounds in certain specific situations.\(^5\) The debate is not on the value of daily rounds but on the approach. The objectives of the daily rounds are to obtain the pertinent information on the patient’s current medical status (progress) and to make management decisions (plans). The question is: could these goals be achieved by the ‘sit-down rounds’ or the ‘work room rounds’. The answer is not that simple. There is limited data and low evidence ranking on this practice (level 5, expert opinion without explicit critical appraisal). Technology could be of help rather than hindrance in promoting daily bedside rounds in NICU. With the increasing use of bedside analyzers and portable computer-generated data processing units, it is now possible to retrieve most of the information at the bedside rather than a remote station. Thus, the use of bedside round is strongly recommended. However, further research should be carried out to validate this clinical opinion.

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