

Article: Who are the Residents of a Nursing Home in Singapore?

(SMJ Vol 44 Issue 2 February 2003)

Dear Sir,

The above-mentioned article, "Who are the residents of a Nursing Home in Singapore?" by LKP Yap, SYL Au, YH Ang, KY Kwan, SC Hg and CH Ee in the Singapore Medical Journal 2003 Vol 44(2):065-73, raised the concern for a need to focus on quality of health care in nursing homes. As highlighted by the authors, Singapore is facing a fast ageing population and this has an implication for a growing demand for nursing homes, which would eventually lead to a greater need for quality nursing homes.

There is, however, difficulty in defining quality for the provision of health care. There is no single, precise or ideal definition of quality. In our efforts to define one, we can review quality based on a few generic, widely adopted criteria. Besides being accessible to care, the efficacy with which care is delivered should also be considered. Other criteria for review include the effectiveness and appropriateness of the care. We should also not neglect looking into the acceptability of the care to the patient so as to ascertain their levels of satisfaction. The article did skim through some of these aspects but more studies would certainly be required.

The availability of data is vital to quality measurement. Quality measurement and improvement can lead to improvement of patient care and effective use of medical budgets. Findings from the study reflected in the article also provided vital information for the formation of quality nursing homes. Information such as the medical problems experienced by the sample group would indicate the amount and type of medical attention required. The findings had shown that an alarming number of patients have illnesses and incapacities that require medical assistance and attention. Unfortunately, we are also experiencing the downward trend in recruitment of nurses and medical professionals. The authors had also highlighted that an alarming 40% had suffered from at least one fall in the nursing homes and amongst the sample group of 118, 12 were omitted as they were either discharged or had died. For the group of patients, although the number is not high, it could be a fruitful exercise to further investigate the causes for deaths and also causes of falls so that further improvements can be made to the quality of health care. There is a possibility that the deaths could be caused by medical errors for failure for immediate medical attention.

Improvements in the quality of health care or nursing home reform require a total team effort between the government and the industry as a whole. More studies would also be required, including one to determine the framework for assessment of quality health care in nursing homes. On top of that, quality medical professionals must also be available. Once again I would like to congratulate the authors for taking the first giant step in improvement in this unglamorous and often neglected area.

Yours sincerely,

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Dear Editor,

We are very appreciative of the comments made by Dr Eugene Hong.

Indeed, quality in healthcare is difficult to define. It may, however, be easier to measure quality if certain goals in care delivery are determined. In the field of nursing home care, the key goals as described by Ouslander et al are 1) provide a safe and supportive environment; 2) restore and maintain the highest level of functional independence; 3) maximise quality of life, perceived well-being and life satisfaction; and 4) stabilise and delay progression of chronic medical conditions⁽¹⁾. Hence if quality of nursing home care is to be assessed, it is in respect of these four domains that the appraisal can be made.

In our paper, certain problems in medical care were identified as possible targets for a review of existing with the aim of ameliorating these problems. The areas mentioned include malnutrition, sensory deprivation, falls, urinary incontinence and cognitive and functional decline. Undoubtedly, there is a lack of local data on these aspects of nursing home care and it is our hope that more research work into this area of healthcare will develop in the near future. For this to happen, as Dr Eugene Hong has pointed out, a concerted effort by the government and the industry is needed.

We have taken the first step. May there be many more who will join us in this endeavour.

Yours sincerely,

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Article: The SARS Outbreak: How Many Reminders Do We Need?

(SMJ Vol 44 Issue 3 April 2003)

Dear Sir,

I refer to the Editorial in the SMJ April 2003 entitled "The SARS Outbreak: How Many Reminders Do We Need". Although I congratulate the author on his timely commentary, which is filled with sound general principles, it is short on specifics. Without focused thoughts and specific actions, reminders will only remain on the "to do" list. The path to destruction is known to be littered with well meaning reminders.

The specific weakness in the hospital system that allowed the spread of SARS as alluded in the Editorial is the lack of "enhanced respiratory isolation facilities" and "an era when we treated respiratory isolation in a cavalier fashion". The reminder should be clear: "Hospitals are not Hotels" – single rooms for isolation are a necessity in all hospitals, and not a luxury for those who can afford the room charges.

Single isolation rooms and facilities should mainly serve two purposes – (i) to isolate patients who are potentially infectious to other patients, health care workers and visitors; and (ii) to isolate patients who are susceptible to nosocomial infections, i.e. the immunocompromised. Every ward and every specialty must have infection isolation rooms. Specialised isolation hospitals are useful during a known epidemic or disease outbreak but not emerging infections, which crawl into hospitals as just fevers or coughs.

The second reminder is that "Hospitals are not Airlines". Patients unlike passengers cannot be shifted around wards and blocks in the name of upgrading and downgrading (or from overflows to mother wards) without compromise to infection control. Efficient bed management must take into account the risk of nosocomial infection when housing or moving patients. In fact, at the time of admission the admitting doctor must state whether the patient is infectious or immunocompromised to allow for appropriate housing.

Isolation rooms and infection control measures need financial and manpower support. With the SARS outbreak even the blind economist, accountant and policy maker can see the cost of SARS – the cost of not having vigilant infection control in hospitals. Should not the budget of the Ministry of Health come closer to that of the Ministry of Defence? As all can see, to paralyse a crowded city-state, what is needed is not to bring a troop of suicide bombers but just suicide coughers loaded with a respiratory borne virus.

My appeal to the writer and his fellow ID physicians is not just "preach universal precautions" but to seize the moment to provide the medical leadership to recommend specific scientific based effective systems change in the hospital bed management and housing system. With system change the practice of universal infection control measures by health care workers will follow as routine procedures.

It is not just the ID physicians but for the entire medical leadership take responsibility to ensure that effective changes take place. After all we owe it to our patients, community and colleagues.

Yours sincerely,

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Dear Editor,

I would like to thank the letter writer for his comments. I totally agree that isolation rooms are critical to every hospital, not just specialised infectious disease hospitals. In fact, as one of my wisest mentors has pointed out, one of the outstanding achievements of our current government is that very very few people in Singapore now sleep six or eight to a room – unless they are in hospital!! It is well known that the declines in the incidence and mortality from tuberculosis in the United States and other countries occurred long before the advent of streptomycin and were largely due to improved housing and hygiene⁽¹⁾. International evidence based guidelines have been published for essential infection control infrastructure⁽²⁾. The Ministry of Health is in the process of reviewing the crowded situation in our hospitals and emergency rooms and hopefully, changes will be made before the virus reappears in the Northern winter as some believe it might.

Unfortunately, the small and young Infectious Disease Physician community is not in a position to provide the medical leadership for what must be a national medical response. We are trying to provide the scientific and professional input, but we will need the help of the entire medical community to ensure that our hospitals become places of healing rather than foci of contagion. While the profile of Infection Control has been raised, there are fears that the lessons learned are fast fading as even positions for Infectious Disease Physicians begin to disappear from major hospitals. The Singapore Medical Association has been exemplary in asking important questions and showing early leadership in the medical and lay communities. As DMS pointed out in his email to Singapore physicians, the cooperation and dedication of Singapore physicians of all stripes has been one of the good things to come out of the outbreak. One can only hope that administrators will now allow us time to determine an accurate history from patients (this time it was brief hospital visits, next time it might be aquarium visits or neighbours with pet budgerigars) rather than insist we “clear” patients within 10 to 15 minutes to improve on productivity and the “performance” of the hospital.

Yours sincerely,

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Article: Randomised Controlled Trials (RCTs) – Sample Size: The Magic Number
(SMJ Vol 44 Issue 4 April 2003)

Dear Sir,

I read with interest Dr YH Chan's article highlighting the importance and usefulness of significance testing and the related issue of sample size calculations. Dr Chan has raised a critical consideration that is often overlooked by researchers – researchers often do not know how many subjects are required “to obtain a significant result” (p.172) for the study as described in the article. The article has aptly articulated the fundamental concepts researchers need to understand prior to conducting clinical research studies.

These are similar considerations that researchers in the social sciences and other disciplines also often overlook. I would like to add a couple of other related issues for consideration that researchers also often miss. First, statistical significance does not test result importance. Second, statistical significance does not test result replicability. Science is about identifying relationships that consistently recur under stated conditions. Simply put, improbable events are not intrinsically interesting. Some highly improbable events are inconsequential. Researchers sometimes misunderstand and presume that statistical results contain as part of their conclusions information about result importance. Statistical tests should be used only as tools but ultimately, it behooves the researcher to defend result importance⁽¹⁾. Researchers also sometimes consciously or unconsciously, incorrectly assume that p value calculated in statistical significance tests evaluates the probability that results will replicate⁽²⁾. But statistical tests unfortunately, do not do that. It is true that statistical significance tests focus on the null hypothesis. It is also true that such tests evaluate *sample statistics* (sample means, standard deviations) in relation to unknown population parameters (population means, standard deviations). If we know the probability of population parameters, then that will directly bear upon result replicability because we would then know something about the population from which future researchers would also draw their samples⁽³⁾.

As a researcher, I have unwittingly fallen into some of these pitfalls myself. Two suggestions can be offered to help us as researchers to improve research practice. First, in addition to reporting p values and results from statistical significance tests, researchers should be encouraged to also report effect sizes for all tested effects. Effect sizes are important because these indices inform judgement about the substantive or practical significance of results⁽⁴⁾. Of course it would be wise to note that an effect size is no more a panacea than is statistical significance testing. As Thompson⁽¹⁾ argued, human values are not incorporated in the calculation of either p or an effect size. Second, as researchers, we could improve our use of language – when the null hypothesis is rejected, the results should be described as “statistically significant” rather than described only as “significant”. The common and typical meaning of the word “significant” has nothing to do with the statistical meaning of the term, and the use of the phrase “statistically significant” would hopefully, in some way convey that this technical phrase does not imply result importance⁽⁵⁾.

Once again, I applaud Dr YH Chan for highlighting in the clearly presented, well-written article on the importance of understanding basic statistical theory and sample size calculations. Researchers would do well to have a firm grasp of these concepts.

Yours sincerely,

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