

## LETTERS TO THE EDITOR

### CHARACTERISTICS OF PATIENTS ADMITTED INTO ACUTE MEDICAL WARDS WITH DECREASED GENERAL CONDITIONS

#### Summary

The objective of the survey is to ascertain the spectrum of disease and patient characteristics under the category "decreased general condition". It is a descriptive study in which patients presented with "decreased general condition" in 2 medical general wards of Queen Mary Hospital (QMH) from 1<sup>st</sup> July to 30<sup>th</sup> September 2001 will be recruited. Infection accounted for 22 / 53 (41.3%) of the admissions. 28 days re-admissions rate was at 47.2%. Medical review and targeted intervention with holistic approach by CGAT, advanced nurse practitioner or special clinic can be explored to reduce re-admissions among this group of frail elderly.

**Keywords:** decreased general condition

#### Background

Substantial number of elderly present to acute hospital with "decreased general condition (GC)". At times patients or informants cannot give clear history. These patients create diagnostic challenges to junior doctors. Lots of investigations may have been done in order not to miss any serious life-threatening disease. If the underlying conditions cannot be ascertained and treatment not targeted, these patients may readmit shortly and the cycle of investigations repeated. This "revolving door phenomenon" not only adds morbidity to patient, but also wastage of resources. Ascertainment on the spectrum of disease group and patient characteristic under the category "decreased general condition" may help raising index of suspicion that lead to appropriate treatment and management plan. The objectives of the study are to review the diagnosis and outcome of patients presented with "decreased general condition".

#### Method

Patients presented with "decreased GC" from 1<sup>st</sup> July to 30<sup>th</sup> September 2001 in 2 medical general wards of Queen Mary Hospital were recruited in the survey. The chief complaints were collected through the admission record. Demographic data on sex, age, type of accommodations were captured. Final diagnoses were retrieved from discharge summaries through the Clinical Management

System (CMS). Their 28 days re-admissions rate was captured from the computerised hospital In-Patient Activity System (IPAS).

#### Results

Out of the 1920 emergency admissions in the period, 53 (2.7%) patients presented with decreased GC. There were 17 males and 36 females. The mean age was  $82.8 \pm 9.74$ . Old age home residents accounted for 62.3% of the admission. Others lived at home.

Infective conditions accounted for 22/53 (41.5%) of the total admission. Source of infection were from chest (10/22), urinary tract (6/22), biliary system (2/22), decubitus ulcer (1/22) and upper respiratory tract infection (1/22). Two patients had septic shock without definite source. Among those infective conditions, 13 (59.1%) was afebrile upon admission. Other causes of decreased GC included cardiovascular problems, gastrointestinal problem, neurological problem, haematological disease, electrolyte imbalance, adverse drug reaction and psychiatric illness. 9 (17%) of them were diagnosed to have decreased GC eventually, i.e. no specific causes can be accounted for this condition. The results are summarized in Table 1.

Concerning the outcomes, 3/53 (6%) died within the same admission episode. 26/53 (49%) of them were discharged home (home/old age home), 23 (43.4%) were transferred to other unit for management. 1/53 (1.6%) of them transferred to hospice care for terminal care.

Among this cohort, 25/53 (47.2%) was

Table 1: Diagnosis labelling upon discharge

	Number	Proportion
Infection	22	41.3%
Chest infection	10	18.8%
Urinary tract infection	6	11.3%
Cholangitis	2	3.8%
Septic shock	2	3.8%
Infected decubitus ulcer	1	1.8%
Upper respiratory infection	1	1.8%
Gastrointestinal disease	5	9.3%
Neurological disease	4	7.5%
Electrolyte imbalance	4	7.5%
Cardiovascular disease	3	6%
Hematological disease	2	3.8%
Adverse drug reaction	2	3.8%
Psychiatric illness	2	3.8%
Decreased general condition	9	17%
<b>Total</b>	<b>53</b>	<b>100%</b>

readmitted within 28 days after discharge. 7 (13.2%) of them admitted more than once. Infective conditions accounted for 15/25 (60%) of the readmission and 20.6% (5/25) of them had the same diagnosis as before.

### Discussion

This survey showed that all patients admitted with decreased GC was of age >65 (age range 65-107). Infections account for about 40% of the admission, among which 60% failed to show any fever at presentation. 47.2% were readmitted within 1 month and 60% were diagnosed to have infections during re-admissions.

Infections account for about 40% of the final diagnosis, yet 60% had no fever on admission. As suggested by Norman<sup>1</sup>, "to judge whether a geriatric patient has an infection should not rely on temperature alone, other clues such as change in functional status e.g. mental status, behavior should also be considered". Therefore, infections must be considered when a patient presented with non-specific complaint.

The 28 days re-admission rate of 47.2% at this survey was much higher than the corresponding rate of 15.9% among general elderly medical patient in Hong Kong aged 65 or over<sup>2</sup>. 20% of them were re-admitted with the same disease. One has to consider whether the patients were prematurely discharged. Alternatively, one may question whether the initial diagnosis was correct. It may also be a reflection of general frailty of elders living at residential placement that staff at residential places has inadequacy in coping with them because of lack of skills / support. It is not unknown that re-admissions can be due to reason other than medical conditions<sup>3</sup>. Advanced practice nurse-centered discharge planning and home care intervention<sup>4</sup> or focused intervention with holistic approach<sup>5</sup> for at-risk elderly has been shown to

reduced re-admissions and reduced hospital stay. Community Geriatric Assessment Teams (CGAT) is serving old age home residents. The CGAT services may pay special focus to this group of "decreased general condition" patient, either in form of medical review on the patient or by providing support / training to care-givers, to help reducing re-admissions.

### Conclusion

In managing patients with decreased general condition, infections must be considered despite absence of fever. 28 days re-admission rate may be up to 60%. Holistic review at special clinic, by advance nurse practitioner, or through CGAT may be considered to reduce re-admissions.

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