Source: *TODAY*, p29
Date: 2 March 2016

Asthma costs more to treat in obese, overweight patients

SINGAPORE – A 10-year longitudinal study on the trends and predictors of asthma costs has found that overweight and obese patients incur higher annual treatment expenses.

The study, by SingHealth Polyclinics (SHP) and Duke-NUS Medical School, found that average asthma costs per annum for normal-weight patients are S$605, but rise to S$675 and S$795 for overweight and obese patients, respectively. For each visit to the polyclinic, the cost of managing overweight patients is on average S$12 higher than their normal-weight counterparts.

"It is postulated that patients who are overweight, especially those with truncal obesity, have more difficulty achieving asthma control, as chest excursion is likely to be reduced and could impair breathing," said the study's lead author, Dr Tan Ngiap Chuan, SHP's director of research.

In Singapore, about 5 per cent of adults and 20 per cent of children have asthma. According to the Singapore Disease Burden Survey 2010, asthma was also the primary cause of chronic respiratory disease burden in childhood and early adulthood.

The study was conducted with 939 multi-ethnic patients, including both young and the elderly, who were seen at SHP under the Singapore National Asthma Programme for chronic asthma.

The study tracked and analysed patients' clinical data, medication prescription and entire cost of treatment from 2004 to 2013. To avoid distortion of cost due to subsidies in consultation fee and medications, the study used full charges to compute the data.

Apart from findings on overweight and obese patients, the researchers also found that patients who smoke had higher annual treatment expenses than non-smokers. But there is no difference in treatment expenses between patients who are former smokers and those who do not smoke.

They also found that patients who shifted from using controller drugs to combination drugs reduced their frequency of consultation and asthma drug costs over time due to better asthma control, although combination drugs will be more expensive initially. Combination medication, which is for patients with more serious cases of asthma, includes controller and long-acting reliever medications.

SHP said that, with the findings, the team hopes it will help physicians plan interventions in future to help reduce the cost burden for asthmatic patients, such as advising patients on the importance of weight management, smoking cessation and the use of combination drugs during consultations. **ADDITIONAL REPORTING BY LAURA PHILOMIN**

OBESITY IMPACTS BREATHING

> It is postulated that patients who are overweight, especially those with truncal obesity, have more difficulty achieving asthma control, as chest excursion is likely to be reduced and could impair breathing.

Dr Tan Ngiap Chuan
SINGHEALTH POLYCLINICS DIRECTOR OF RESEARCH