Poor dental hygiene puts congenital heart disease patients at risk of further heart damage
16 March 2012

Copenhagen, 16 March 2012: Poor dental hygiene behaviours in patients with congenital heart disease are increasing their risk of endocarditis. Teens with congenital heart disease floss, brush and visit the dentist less than their peers. But they have healthier behaviours when it comes to alcohol, cigarettes and illicit drugs. Adults with single ventricle physiology (a type of congenital heart disease) also have poorer dental hygiene practices than their peers despite having better health behaviours overall.

The findings were presented in two studies at the 12th Annual Spring Meeting on Cardiovascular Nursing, 16-17 March, in Copenhagen, Denmark.

"Patients with congenital heart disease are diagnosed and receive their initial treatment in childhood but this does not mean that they are cured," says the supervisor of both studies, Professor Philip Moons, professor in nursing science at the University of Leuven, Belgium, and guest professor at Copenhagen University Hospital, Denmark. "They remain vulnerable for developing complications - for instance we know that in patients with congenital heart disease, binge drinking can trigger life-threatening arrhythmias and good dental hygiene helps prevent endocarditis."

For the first study (FPN 34), lifestyle information was collected from 429 adolescents with congenital heart disease aged 14-19 years from the longitudinal study i-DETACH (Information technology Devices and Education programme for Transitioning Adolescents with Congenital Heart disease). Of these, 401 were matched with a control of the same age and gender without congenital heart disease. All participants completed a questionnaire, developed by the research group of Professor Moons, which measures the use of alcohol, cigarettes and illicit drugs, dental care and physical activity. These behaviours are particularly important to the health of patients with congenital heart disease.

Using results from the questionnaire, the researchers calculated risk scores for 'substance use' (binge drinking; smoking; illicit drug use) and 'dental hygiene' (no dental visits; not brushing; not flossing) ranging from 0. An 'overall health risk score' (range 0?) was calculated using the substance use risk score, dental hygiene risk score, and the absence of physical activity. The 3 risk scores were transformed to a scale ranging from 0 (no risk) to 100 (maximum risk). Scores were compared across different age groups.

In adolescents with congenital heart disease, substance use increased with age (p