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White Rose
university consortium
Universities of Leeds, Sheffield & York

eprints@whiterose.ac.uk
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Table 3. Preventive practice recommendations for metabolic syndrome and cardiovascular risk factors for adult and pediatric patients amongst the general population and HCT survivors

	General adult population (Grundy. Circulation. 2005)	Adult long-term HCT survivors (Majhail. BBMT. 2012)	General pediatric population (http://www.nhlbi.nih.gov)	*Our recommendations* (CIBMTR/EBMT MetS collaboration)
Weight control	Recommend behavioral changes to reduce caloric intake and increase physical activity	Recommend education and counseling on "heart" healthy lifestyle (regular exercise, healthy weight, no smoking, dietary counseling)	Combined weight loss programs that include behavior change counseling, negative energy balance through diet, and increased physical activity	Provide advice regarding intensive, multicomponent behavioral interventions focused on achieving and maintaining healthy weight by reducing caloric intake and increasing physical activity
Dyslipidemia control	Non-pharmacologic treatments include weight reduction, increased physical activity, and antiatherogenic diet Lifestyle modifications and lipid lowering therapies to achieve risk-adapted target for LDL is primary goal, even in MetS. Once LDL is at target, further lipid lowering therapy can be added to achieve targets for HDL and TG. If TG>500 mg/dL (5.65 mmol/L), initiate fibrate or nicotinic acid	Recommend education and counseling on "heart" healthy lifestyle (regular exercise, healthy weight, no smoking, dietary counseling) Treatment goals are based on overall risk of heart disease (eg, >10% chance of coronary heart disease in 10 years). Overall risk assessment will include the following risk factors: age, sex, diabetes, clinical atherosclerotic disease, hypertension, family history, low HDL (<40 mg/dL or 1.0 mmol/L), and smoking.	Non-pharmacologic interventions: CHILD-1 diet, activity education, and weight management If LDL goals not achieved after 6 months on non-pharmacologic intervention, consider statin therapy if age >10 years to achieve tier I treatment goals for LDL	Lifestyle modifications and lipid lowering therapies to achieve risk-adapted target for LDL is primary goal, The decision to initiate lipid lowering therapy should include assessment of overall risk of heart disease. (http://cvdrisk.nhlbi.nih.gov) If TG>500 mg/dL (5.65 mmol/L), initiate fibrate or nicotinic acid
Blood pressure control	For BP >120/80 mm Hg: Initiate or maintain lifestyle modifications For BP >140/90 mm Hg (or >130/80 mm Hg for individuals with chronic kidney disease or diabetes): As tolerated, add BP medication as needed to achieve goal BP	Non-pharmacologic treatments may also be tried for mild hypertension and include moderate dietary sodium restriction, weight reduction in the obese, avoidance of excess alcohol intake, and regular aerobic exercise. Treatment is indicated for readings >140/90 in adults on two separate visits at least 1 week apart, unless hypertension is mild or can be attributed to a temporary condition or medication (eg, cyclosporine).	Non-pharmacologic interventions: CHILD-1 diet, activity education, and weight management Up-front initiation of anti-HTN therapy for Stage II HTN; initiation of anti-HTN therapy for Stage I HTN if no response to 6 months of non-pharmacologic intervention	Non-pharmacologic treatments may also be tried for mild hypertension and include moderate dietary sodium restriction, weight reduction in the obese, avoidance of excess alcohol intake, and regular aerobic exercise. Treatment is indicated for readings >140/90 in adults on two separate visits at least 1 week apart, unless hypertension is mild or can be attributed to a temporary condition or medication (eg, cyclosporine).
Glycemic control	For IFG, encourage weight reduction and increased physical activity. For type 2 DM, lifestyle therapy, and pharmacotherapy, if necessary, should be used to achieve near-normal HbA1C (<7%).	Recommend education and counseling on "heart" healthy lifestyle (regular exercise, healthy weight, no smoking, dietary counseling)	Non-pharmacologic interventions: CHILD-1 diet, activity education, and weight management Consultation with an endocrinologist as needed to maintain optimal plasma glucose and HbA1c for age.	For IFG, encourage weight reduction and increased physical activity. For type 2 DM, lifestyle therapy, and pharmacotherapy, if necessary, should be used to achieve near-normal HbA1C (<7%).

* NCI/NHLBI Pediatric BMT Consortium publication (Pulsipher. BBMT. 2012) does not provide preventive practice recommendations

Abbreviations:
BP: blood pressure; CIBMTR: Center for International Blood and Marrow Transplant Research; CHILD-1: Cardiovascular Health Integrated Lifestyle Diet; DM: diabetes mellitus; EBMT: European Group for Blood and Marrow Transplantation; HbA1C: hemoglobin A1C; HCT: hematopoietic cell transplantation; HDL: high-density lipoprotein cholesterol; HTN: hypertension; IFG: impaired fasting glucose; LDL: low-density lipoprotein; TG: triglycerides