

Preventive health care visits for children and adolescents aged 6 to 17 years: The Greig Health Record – Technical Report

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Abstract

The Greig Health Record is an evidence-based health promotion guide for clinicians caring for children and adolescents aged 6 to 17 years. It is meant to provide a template for periodic health visits that is easy to use and is easily adaptable for electronic medical records. On the Greig Health Record, where possible, evidence-based information is displayed, and levels of evidence are indicated in **boldface** for good evidence and *italics* for fair evidence.

Checklist templates include sections for weight, height and body mass index; psychosocial history and development; nutrition; education and advice; specific concerns; examination; and assessment, immunization and medications. Included with the checklist tables are three pages of selected guidelines and resources. Regular updates to the statement and tool are planned. The Greig Health Record is available in English only at http://www.cps.ca/english/ CP/PreventiveCare.htm

Key Words: Adolescents, Child health services, Children, Counselling, Evidence-based practice, Forms and records, Preventive health care, Primary prevention, Screening

Introduction

Health care providers appreciate tools that help streamline office visits and serve as an *aide-mémoire* for the application of evidence-based guidelines. The Rourke Baby Record is an excellent example of such a tool ^[1]. Searches for a similar tool for periodic health visits for older children and adolescents were unsuccessful in finding an appropriate model. To fill this gap, the Greig Health Record templates were created using the model of the Rourke Baby Record ^[1]. It is hoped that these templates will provide a framework for standardized visits, provoke discussion and perhaps stimulate research.

Statement development

This statement was developed by first searching for available tools and recommendations for periodic health visits for children and adolescents aged 6 to 17 years. PubMed searches were performed using the terms "anticipatory guidance", "preventive services," "prevention," "screening" and "health promotion" in the years 1987 to 2009. It was hoped that a tool would be found that was evidence-based, simple to use, held data in column form for easy comparison year-to-year and was easily adaptable for electronic medical records. No such tools were found, but major guidelines have been produced by the Canadian Task Force on the Periodic Health Examination ^[2], the United States Preventive Services Task Force ^[3], the American Academy of Pediatrics ^[4], the American Academy of Family Practice and the Maternal Child Health Bureau (through Bright Futures)^[5], and the American Medical Association (through the Guidelines for Adolescent Preventive Services)^[6].

Common elements were noted and the literature was reviewed for each element to determine its level of evidence. This included a formal review by a clinical paediatric epidemiologist, Dr. E. Constantin.

Checklist tables for the Greig Health Record are a synthesis of compiled information to form an evidence-based tool that can be used for the periodic health visits.

Levels of evidence and limitations

Evidence-based information for children and adolescents aged 6 to 17 years is lacking, and there is little agreement

among guidelines ^{[7][8]}. Decisions to include elements were based primarily on consensus opinions and review of existing guidelines. Where possible, evidence-based information has been used and levels of evidence were indicated.

The support for each element in the Greig Health Record template is noted in **boldfaced type** for good evidence (grade A), *italics* for fair evidence (grade B) and normal typeface for consensus recommendations (grade C) ^[9]. Note that the grade of evidence indicated reflects the usefulness of each manoeuvre, not whether office-based counselling was found to be effective for each manoeuvre. For example, the use of bicycle helmets is clearly effective in reducing head injuries; however, evidence that office-based counselling increases use is not consistent among studies ^{[10][11][12]}. There are few studies on the effectiveness of office-based counselling for individual elements. Where such studies are available, they have been noted.

Given the evolving nature of evidence and changing recommendations, the Greig Health Record is meant to be used as a guide only. Regular updates to the statement and tool are planned.

Agreement amongst major guidelines

The following outlines the consensus available amongst each of the above guidelines. There is agreement on the need for a periodic health examination. Immunizations are uniformly recommended, although details are not consistent. There should be a physical examination in which height, weight, body mass index (BMI) and blood pressure are measured, and the stage of sexual maturity assessed in the adolescent. General anticipatory guidance is recommended, and specific counselling is recommended for healthy diets and seatbelt and helmet use. Counselling for alcohol and drug avoidance in specific activities is uniformly recommended. Sexually active females are advised to have cervical cancer and chlamydia screening.

Template layout

In the Greig Health Record, checklist templates are divided into three age ranges, 6 to 9 years, 10 to 13 years and 14 to 17 years inclusive. Headings for sections include weight, height, body mass index; psychosocial history and development; nutrition; education and advice; specific concerns; examination; and assessment, immunization and medications. While pages were divided arbitrarily into early, mid and late groupings, it is important to remember that children develop at different rates and screening questions should be tailored to the individual ^[13]. For example, it may be appropriate to discuss pubertal development with some 8 or 9 year-olds, especially girls, and not appropriate for their less mature peers. Included with the checklist tables are three pages of selected guidelines and resources related to preventive care visits. The second of these pages focuses on injury prevention and, Internet resources and is designed for easy copying as a handout for patients and parents. The elements on the checklist are labelled with a star or stars to indicate the page location for related materials.

Template use, visit structure, and confidentiality

In the absence of compelling data, the present statement recommends that visits occur every one to two years based on a consensus recommendation. This interval is in common use and is recommended for obtaining height and weight measurements ^{[14][15]}. The American Academy of Pediatrics (AAP) (Bright Futures) and the American Medical Association (AMA) recommend yearly preventive health visits, but other guidelines do not specify frequency as the recommendation is not evidence-based ^{[4][8][16]}. In healthy younger children, there is some evidence to suggest that reducing the number of health promotion visits does not result in adverse outcomes (17). In the United Kingdom, a minimum of two visits is recommended: one at school entry and another for immunization at age 13 to18 years ^{[18][19]}.

It is important to remember that the preventive heath visit is not the only opportunity to address prevention. Also, not all the elements in each section need to be covered at each visit. Clinicians are expected to use their own discretion as to the topics and timing of discussions with each patient.

It is important to consider and counsel on special issues pertaining to the adolescent ^[20]. It may be useful to review references on interviewing and examining adolescents ^{[21]/[23]}. It is generally recommended that at least part of the visit with the adolescent be conducted in private, with parents or guardians excused. Confidentiality is central to a successful therapeutic relationship ^[24]. While there are variations among provinces/ territories, under Canadian Common Law minors can give informed consent to therapeutic medical treatment, provided they understand and appreciate the proposed treatment, attendant risks and possible consequences ^{[21][25][26]}. It is important that the adolescent understand the scope and limitations of this confidentiality, and that exceptions exist in cases of homicidal or suicidal ideation and emotional, physical or sexual abuse ^[24].

Care of the adolescent involves developing autonomy and responsibility in health care issues and transitioning from childcentred to adult-oriented health care. Both processes are particularly important for adolescents with special needs. The Canadian Paediatric Society (CPS) provides a helpful statement for guidance with these patients ^[27].

Measurements: Height, weight and BMI

A recent collaborative statement from the Dietitians of Canada, the Canadian Paediatric Society, The College of Family Physicians of Canada and Community Health Nurses of Canada, recommends the use of the World Health Organization (WHO) growth charts in children and adolescents [28]. Previously, growth charts from the US Centers for Disease Control and Prevention (CDC) for year 2000 were recommended for assessing and monitoring the growth of Canadian children ^{[15][29]}. The WHO charts for children 5 years and under display standards for growth under optimal conditions, and thus are considered superior to the CDC's populationbased charts [30]. The WHO has also developed charts for children and youth aged 5 to 19 years to align with the younger group's charts (31). Although these charts are not based on population studies with growth under optimal conditions, they too are superior to the CDC's charts. They correct for the influence of rising obesity rates and they align with the younger group's charts as well as adult BMI cut-offs for overweight (>25 kg/m2) and obese (>30 kg/m2) $^{[28]}$.

Measurement of BMI is recommended as the most accurate gauge of appropriate weights for height and for the diagnosis of obesity. BMI for age charts from the WHO assist in determining percentiles. Note that for children over 10 years of age, BMI and not weight for age is recommended for plotting. Cut-offs are defined for underweight (< 3rd percentile), overweight (85th to 97th percentile) and obese (>97th percentile)^[28].

Childhood obesity is associated with health problems in children and is a risk factor for adult morbidity and mortality ^{[32]-[^{34]}. Reviews of evidence for the prevention and management of childhood obesity are available ^{[32][35][36]}, as are a practical guideline for managing obesity from the Ontario Medical Association Child Health Committee ^[37], and a clinical practice guideline from Obesity Canada ^[38]. It is important to note that evidence for effective primary care interventions is insufficient, although motivational interviewing shows promise ^{[38]-[41]}.}

Family history, risk factors and allergies

A small area for family history has been included on the top left-hand corner of the template to assist in identifying children at risk for conditions such as mood disorders, cardiovascular disease and diabetes ^{[42][43]}. Other risk factors and allergies can also be recorded here.

Psychosocial history and development

School and activities, peer relationships, family relationships The social history of younger children should focus on family structure and dynamics, discipline issues, school performance and enjoyment, extra-curricular activities and peer relationships including bullying. The focus of health visits shifts as the child matures. Discussions are tailored to the child's age and maturity and consider anticipated changes. It is important to discuss the changing nature of the adolescent's relationships with peers and family, and to inquire about school, work and social groups. The HEADSSS (Home, Education and Employment, Activities, Drugs and Dieting, Sexuality, Suicide and Depression, Safety-violence and abuse) questionnaire is a guide for psychosocial interviewing of adolescents and is included in the template resource pages for reference [21].

Mental health

Adolescence is a time of emotional changes, peer pressure and risk of substance abuse, depression, anxiety and suicide. Anticipatory guidance should be given to the pre-adolescent as well as to older children. Most guideline-producing organizations, including the American Academy of Paediatrics (AAP), the American Academy of Family Practice (AAFP) and the American Medical Association (AMA), recommend asking about emotional health [2][42][44]-[46]. The United States Preventive Services Task Force (USPSTF) recommends screening for major depressive disorder (MDD) in adolescents (grade B) provided that systems for diagnosis, treatment and follow-up are in place. For pre-adolescent children (aged 7 to 11 years) there is insufficient evidence to make a recommendation [45]. As depressive disorders are present in 1to 2% of children in this age group, health care providers should be aware of associated symptoms and behavioural issues [47].

The USPSTF recommends the Patient Health Questionnaire for Adolescents (PHQ-A) and the Beck Depression Inventory-Primary Care version (BDI-PC) as effective tools for screening ^[45]. Other detailed guidelines for interviewing are also available ^{[42][48]}. The Guidelines for Adolescent Depression in Primary Care (GLAD-PC) Toolkit is particularly useful ^[47]. There is good evidence that primary care intervention in depression is helpful ^{[45][49]}. The use of cognitive behavioural therapy and/or interpersonal psychotherapy to prevent of depression in high-risk children and youth shows some promise ^[50]. The CPS website has an extensive directory of mental health screening tools available for members ^[51].

Body changes

The physical changes of puberty should be addressed and anticipatory guidance given. Assessment of sexual maturity is included in the physical examination. For easy reference, Sexual Maturity Rating (SMR) tables have been included in the template resource pages. Although age ranges have been included, it is recognized that there is considerable normal variation outside of the ranges given ^{[52]/[54]}. Precocious puberty refers to the appearance of physical signs of puberty before 9 years of age in boys, and before 7 or 8 years in girls. It is proposed by some that in some ethnic groups, the appearance of breasts and pubic hair may be normal as early as 6 years of age ^[55]; although there is considerable debate and concern about missing significant pathology ^[56]. One suggestion is that girls who have both breast and pubic hair development at age 7 or 8 should have a review of growth and history and a bone age evaluation for height prediction and to help identify those in need of further testing ^[57].

Sexual health

Sexual health in the adolescent includes many factors that influence sexual development (both physical and psychosocial), sexual function and reproductive health. These topics must be addressed with sensitivity. Discussions can range from contraception to sexual orientation ^[58], from dating safety and abusive relationships to sexually transmitted infections. For sexually active adolescents, one must initiate counselling and screening as for young adults.

The USPSTF recommends intensive behavioural counselling in sexually active adolescents to prevent sexually transmitted infections ^[59]. Safer sex counselling for risk reduction is recommended as there is good evidence that counselling for condom use in adolescents decreases the incidence of sexually transmitted infections ^[60]. A table of prevention counselling topics is included resource pages of the template, summarizing strategies recommended by the Public Health Agency of Canada ^[61] and the CDC ^[62] in their sexually transmitted infection guidelines. Counselling about contraception ^[63] and anticipatory counselling about folic acid ^[64] are recommended by the Society of Obstetricians and Gynaecologists of Canada for all females in their childbearing years.

Screening sexually active youth is recommended as follows:

- Cervical cancer screening has been recommended to begin within three years of onset of vaginal sexual activity ^[65]; however, a recent evidence-based recommendation from the American College of Obstetricians and Gynecologists updates cervical cancer screening. For women under 21 years there is good evidence to omit cervical cytology screening. In adolescents and young women, HPV infections and dysplasia are likely to resolve spontaneously and risk of cancer is low ^[66].
- Persons under 25 years of age are at highest risk for chlamydial and gonococcal infections ^[67]. Chlamydia screening in females is recommended based on a grade A level of evidence. There is insufficient evidence to make a recommendation for males ^[68]. While the USPSTF reports insufficient evidence to recommend a screening frequency (68), the CDC recommends screening adolescent females annually ^[62].
- The USPSTF recommends gonorrhea screening in communities with a high prevalence of gonorrhea ^[3].

- HIV and syphilis screening is strongly recommended for specific high-risk groups ^{[69][70]}.
- Physicians should screen all sexually active patients for high-risk behaviours ^[71], and recognise that disease prevalence changes and varies among communities.

A summary of the USPSTF screening recommendations is summarized on the reverse side of the tool ^[72].

The specifics of counselling and screening for pregnant teens are beyond the scope of this document. A summary of the evidence-based recommendations is available from the American Academy of Family Physicians ^[73]^[74].

Menstrual issues

Dysmenorrhea is the most common gynecologic complaint among adolescent females ^[75]. As well, it is a leading cause of absenteeism from school and work for this age group ^[76]. Disorders of menstruation, including dysfunctional uterine bleeding and amenorrhea, are significant health issues that adolescent females are often reluctant to discuss with health care providers ^[77]. Menstruating adolescents should be screened for risk factors associated with iron deficiency ^[78],80].

Testicular self-examination

There is evidence to recommend against counselling for testicular self-examination or clinical examination, in individuals of average risk, in light of the low incidence of testicular cancer and favourable outcomes in the absence of screening [3][81].

Breast self-examination

Teaching breast self-examination is not recommended in adults between 40 to 70 years of age. There is fair evidence of no benefit and good evidence of harm in the form of increased physician visits and benign biopsy results. For women under 40 there is little evidence on which to base a recommendation; however the very low incidence of breast cancer in this age group would make the net risk of harm more likely ^[82].

Nutrition, Supplements, and CAM, Eating Disorders

Healthy choices

The importance of nutrition in the health of children is readily appreciated ^[44]. Clear evidence exists for diet as a crucial factor in the causation of coronary artery disease, and there is growing evidence for nutrition playing a role in some cancers, hypertension and diabetes. Most clinicians recommend lowering saturated fats and consuming ample amounts of fruits, vegetables, whole grain cereals and legumes in order to reduce chronic diseases ^[83]. However, guidelines for nutrition requirements are not as readily available for older children as they are for infants and toddlers ^[84]. Methods to evaluate the quality of nutritional intake by children and youth can be helpful when questions arise about the healthfulness of eating habits ^[85]. *Canada's Food Guide* is a well known standard reference ^[86]. The periodic health visit is an opportunity to discuss healthy food choices for meals and snacks. Eating dinner at home with the family present is associated with better diet quality in children and adolescents ^[87] ^[88]. Good choices for meals are not always accompanied by healthy choices at other times; the quality of meals eaten outside the home should also be addressed ^[89].

The adolescent female requires particular attention with regard to nutrition. Calcium intake, vitamin D and weight-bearing exercise, among other factors, influence bone mass accretion in adolescence, which in turn is directly related to adult bone mass ^{[83][90]-[93]}. Dietary iron intake should be evaluated in adolescents with heavy menses. Anemia is generally recognized as the main nutritional problem in adolescent girls worldwide ^[83].

Supplements and complementary and alternative medicine (CAM)

Physicians should ask about the use of vitamins, other supplements and alternative health products and therapies. Regarding supplements, the WHO recommends supplements for specific nutrient deficiencies but suggests that using food sources is important for making sustainable corrections for dietary deficiencies and healthy eating should be promoted [83].

Other supplements used by adolescents may include performance-enhancing products such as DHEA (dehydroepiandrosterone), creatine, protein supplements and anabolic steroids ^[94].

The definition of complementary and alternative medicine adopted by the Cochrane Collaboration is "a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period" ^[95]. It can include herbs, homeopathic medicines, acupuncture, energy healing, yoga, special diets and biofeedback techniques ^{[94][96]}. Adolescents use herbs and dietary supplements more frequently than any other form of CAM ^{[94][97]}.

The rate of CAM use is approximately 20 to 40% in healthy children and more than 50% in children with chronic, recurrent or intractable conditions ^{[96][98]}. In certain subgroups, such as street youth and those who have suffered relapses or other setbacks, rates approach 70% ^{[96][98]}.

Physicians need to be aware of, enquire directly about and promote open discussion about CAM use (96). Possible interactions with prescription medications make it important to inquire about CAM use ^{[96][99][100]}. As with conventional therapies, safety of CAM products in adults does not ensure the same in children and adolescents ^[100].

Body image / dieting

Eating disorders, disordered eating and dieting can be addressed by inquiring about body image, self-esteem, desire to change weight and foods eaten. It is important to ask about weight control behaviours and obsessive thinking about food, weight, shape or exercise ^{[101][102]}.

Health care providers should be aware that weight-related problems, including obesity, eating disorders, and disordered eating, have risk and protective factors in common. Therefore sensitivity to this information is important in the prevention of weight-related problems ^[103].

Education and advice

Behaviour and family issues

Physical activity: Regular daily exercise for children is key for maintaining physical health and reducing childhood obesity ^{[32][104][105]}. Being physically active has positive effects on self-esteem, quality of life and quality of peer relationships, and may have a protective effect against adult alcohol use and progression to other illicit drugs ^{[106][107]}. In adults, the effectiveness of physical activity in reducing the incidence of cardiovascular disease has been established ^[108]. Establishing good habits in childhood may lead to increased physical activity ity as adults ^[109]. Counselling with written materials can modestly increase physical activity ^[7].

Electronic media-TV/ Internet / hearing protection: Education surrounding television and electronic devices is recommended. Limits need to be placed on duration, location and types of exposure ^{[107][110][111]}. Increased sedentary behaviour is a risk factor for overweight and obesity in children ^{[105][112]} ^[113].

Physicians make a positive impact on children's television viewing habits. There is a relationship between watching violent television programmes and violent behaviour; a relationship between excessive television watching and obesity; and, watching certain programs may encourage irresponsible sexual behaviour ^[110]. Children often have access to the Internet both at home and school. Parents and children need to know basic rules for safe use of the Internet ^{[110][114]}. Parents can also be educated about how to find accurate health information on the Internet ^[115].

The periodic health visit is an opportunity to speak with patients about using ear protection for very loud activities such as rock concerts and about keeping the volume turned down on personal music devices. Using appropriately fitting earbuds or earphones is helpful ^[116]. Permanent hearing loss is related to the loudness and the duration of exposure. Rock concerts and personal music players can reach an intensity of 110 to 120 dB ^[117]. The upper limit recommended for occupational noise exposure is 85 dB ^[118]. Studies show that many adolescents suffer permanent hearing loss due to excessive noise from leisure activities ^[119].

Sleep Issues: Sleep problems arise in all age groups. Disturbed sleep may be indicative of psychosocial issues or other medical conditions, such as obstructive sleep apnea ^{[120][121]}. It is worthwhile to ask about sleep habits, daytime somnolence and issues that may arise from disturbed or disruptive sleep patterns such as reduced concentration and irritability. There is a normal change in sleeping patterns during adolescence ^[122]. Caffeine use has detectable effects on sleep ^[123]. Poor sleep has significant negative effects on academic performance in adolescents ^[124]. Adolescents require 9 to 9 ^{1/2}; hours of sleep per night ^{[125][126]}, but the actual mean sleep time for this group is significantly less ^[127].

Effective discipline: Age-appropriate anticipatory guidance can be given to parents for discipline issues. It is important to emphasize that discipline includes providing encouragement for positive behaviours and clear, consistent communication of limits and rules. Parent handouts on effective discipline for younger children are available from the CPS ^[128].

Injury prevention and safety

Injury prevention counselling has been shown to reduce some risk-taking behaviours. Counselling is most effective if multidisciplinary interventions are implemented ^{[7][10][12]}. To this end, sharing Internet resources on safety with parents and patients may be helpful.

Helmet safety: There is good evidence to support the use of bicycle helmets, with studies showing an overall decrease in the risk of head and brain injury by 65%-88% ^[129/131]. One study showed that office-based counselling results in a slight increase in use of bicycle helmets, while other studies demonstrated that office-based bicycle helmet counselling was not more effective than the standard of care ^[10/12]. Community-based intervention programs show a positive impact on bicycle helmet use ^[132]. Legislative interventions are also clearly effective in reducing head injuries ^{[133][134]} but only 6 of our 13 provinces and territories have bicycle helmet legislation ^[135]. Thus, an emphasis on a multi-disciplinary approach to counselling, including community education, is recommended ^[10]

Vehicle safety: There is good evidence for the use of seatbelts for children aged 8 and older and for the use of booster seats for children between the ages of 5 and 7 ^{[136]/[138]}. In Canada, there is considerable variation in booster seat legislation. Some provinces have laws requiring booster seat use until 8, 9 and even 10 years while others make no recommendation ^[139]. Based on a systematic review of randomised controlled trials, there is strong evidence to support that counselling re-

sults in a modest increase in seatbelt use ^{[12][140][141]}. Physicians should counsel parents regarding graduation to seatbelts, especially to avoid premature graduation for smaller children ^{[137][141][142]}. Guidelines are available from Transport Canada ^[143] Safe Kids Canada ^[144] and the CPS ^[145].

Driving safety should be discussed ^[146], particularly related to being in a motorized vehicle (including watercraft and snowmobiles) as a driver or passenger while under the influence of alcohol or drugs ^{[7][147]}. There is fair evidence for the negative effects of driving under the influence of marijuana ^[148]. In contrast to driver education training programs, graduated licences appear to be effective in crash prevention ^{[147][149][151]}. There is good evidence that graduated licensing programs reduce the crash risk for young drivers by approximately 20.40% ^[152]. Contributing factors to teen driver crashes and injuries are listed in a table in the template resource pages.

The CPS and AAP recommend restricting the operation of all-terrain vehicles and snowmobiles to persons 16 years or older; there is strong evidence to support that operators under 16 years of age are at significant risk of sustaining serious head, brain, pelvic or spinal cord injuries (153). Physicians should also counsel parents that children should not ride as passengers on ATVs or snowmobiles ^{[154][155]}.

Violence and firearms: Canada's youth mortality from firearms is one of the highest in the world ^{[156][157]}. Physicians are not accustomed to routinely discussing firearms and violence. Counselling about firearm safety is not effective, but fair evidence exists for firearms in the home increasing the risk of unintentional injury ^[156]. Parents can take an active role by reducing access to firearms, including removing them from the home ^[158].

Trampoline safety: Trampolines are a high-risk source of injury. Data from the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) show that the majority of trampoline injuries occur in children aged 5 to 14 years. While the most common injury is upper limb fractures, severe injury can result from cervical spine trauma. Many trampoline injuries occur when there is more than one person on the jumping surface and supervision is inadequate or absent. The CPS, AAP and Safe Kids Canada recommend the elimination of all trampolines in the home environment and no participation for children under 6 years of age ^[159].

Water safety: There is insufficient evidence that swimming lessons and water safety education prevent injury ^[2]. There is evidence that swimming lessons improve swimming ability and water recovery ^[160],162]. However, there is no clear evidence that swimming lessons prevent children from drowning or near-drowning. Active supervision and pool fencing are the most important preventive strategies for drowning and near-drowning; children and adolescents should be counselled to never swim alone ^[163],165]. Swimming and swimming

lessons can be encouraged and promoted for physical activity. Swimming skills are learned most efficiently beginning at about 5 years of age ^[166].

Sun safety: Sun exposure in childhood is a major risk factor for adult melanocytic and non-melanocytic skin cancers ^[167] ^[168]. Patients and families need education about ultraviolet light exposure, both from sunlight and from tanning salons. Determination of the effectiveness of interventions in health care settings requires further study ^[169].

Workplace safety: For adolescent workers, occupational injury and illness are largely preventable. Physicians can play a crucial role in prevention by advising them of common workplace dangers ^[170]. It is important to note that younger children may also be exposed to workplace hazards, especially in family businesses such as farming and fishing operations. It has been shown that a workweek of 20 hours or more is associated with emotional distress in adolescents ^[171].

Environmental hazards: Evidence for hazards posed by exposure to toxins in the environment is evolving. Children are particularly at risk ^[172]. Physicians should be aware of available resources, some of which are listed resource pages of the template. A review of current evidence for the effects on children of the following hazards is available: environmental tobacco smoke, lead, methylmercury, polychlorinated biphenyls, dioxins, certain pesticides, aeroallergens, ambient air toxicants, chlorination disinfection by-products, magnetic fields, radiofrequency radiation, residential proximity to hazardous waste disposal sites, and solvents ^[173]. There is good evidence for second-hand smoke as a cause of asthma, worsening asthma and lower respiratory tract infections ^{[174][175]}. Concern also exists about levels of exposure to DEET in insect repellents ^{[176][178]}.

Smoke detectors: There is fair evidence that smoke detectors save lives. Families should be counselled to ensure that smoke alarms are properly installed and checked regularly ^[7] [140].

Other safety topics: Clinicians may wish to include other safety topics in discussions with patients and parents. A list of possible topics is included in the template resource pages. Parents can be directed to the Canada Safety Council website ^[179], Safe Kids Canada ^[180] and the CPS Keeping Kids Safe resources ^[181].

Traffic and pedestrian safety, winter safety and playground safety should be addressed with the younger child. Playground safety information can be obtained from the CPS and Safe Kids Canada ^[180]. Safe road-crossing should be discussed ^[7]. Where appropriate, farm and rural safety can be discussed.

Children's curiosity puts them at risk. Discarded needles, syringes and condoms can be found in the child's environment including in parks and schoolyards. The CPS advises parents to teach children about the risks of handling needles and syringes and makes recommendations for management of needle stick injuries ^[182].

Preparing children for situations in which they need to show initiative can be part of the periodic counselling. Young children can be taught to memorize their phone numbers and addresses and given simple rules to follow for various situations such as being lost, in danger or home alone. These are more than the over-simplified "never talk to strangers" rule ^{[183][184]}.

Bullying including cyber-bullying is an important topic to discuss with all school-age children. Although prevalence varies from study to study, bullying is experienced by a significant number of children either as perpetrator or victim (185,186). Both bullies and their victims suffer consequences to both psychological and physical well-being ^{[186][187][188]}.

Sports and recreation counselling topics will depend on the activities the child or youth is involved in, such as skiing, hockey, canoeing or tobogganing.

For the older child, the periodic health visit presents an opportunity to discuss safety and making choices especially in social settings. Dating safety should also be addressed ^[189]. The Kids Help Phone website is an excellent general resource with numerous website links and topics for youth about safety and much more ^[190].

Other

Substance abuse: Most of the major guideline-producing organizations recommend screening and counselling for tobacco use, under-age drinking and illicit drug use. Physicians should advise adolescents to avoid binge drinking and smoking; however, there is insufficient evidence to recommend for or against routine screening for drug use ^[191]. Issues such as family and peer relationships, academic progress, extracurricular activities, self-esteem and acceptance of authority should be part of a routine history with patients 8 years of age and older. Determining a patient's psychosocial history may reveal potential risks and/or preventive factors for substance abuse ^[192].

Smoking has a negative effect on lung function in children ^[193]. Smoking in adolescence has shown to be an important predictor of continued smoking into adulthood. It is important that physicians address strategies for quitting if the patient is already a smoker ^[194]. There is conflicting evidence for the effectiveness of counselling about tobacco and alcohol use. Some studies show strong evidence for the effectiveness of counselling ^{[43][195]}, while others show ineffectiveness or worse ^[7]. One study reported that screening and counselling for risky behaviours in adolescents were more effective when health care workers had proper training (196). Also, a multidisciplinary approach to awareness about alcohol and tobacco

use is an important component of prevention ^[194]. However, the USPSTF concludes that there is insufficient evidence to make a recommendation in adolescents ^[3].

Abuse: Maintaining vigilance for signs and symptoms of abuse is recommended by the American Academy of Pediatrics, the American Academy of Family Practice and the American Medical Association. Reporting cases of suspected maltreatment is mandatory in all of Canada except the Yukon Territory ^[197]. Education of children for what constitutes abuse and what they can do about it is also recommended ^{[198][199][200]}.

However, the use of specific screening tools in older children is not recommended. The Canadian Task Force on Preventive Care concludes that there is fair evidence to exclude screening procedures for abuse prevention ^[201]. The US Preventive Services Task Force found that no trials of the effectiveness of screening in a health care setting have been published, and interventions for older children have not yet been shown to be effective ^[202].

Dental care and fluoride: Professional dental care, including fluoride application and the selective use of sealants has been clearly shown to reduce dental caries. Brushing and flossing are recommended for hygiene and aesthetics, reduction of gingival disease and cavity prevention ^[203]. Fluoride supplementation should be discussed in areas where fluoride is not present in sufficient amounts in the water supply ^[204].

Specific concerns

A section has been included to make note of specific concerns as illnesses and other issues are commonly raised at the periodic health examination ^[205]. Space is sufficient only for a notation of the issue and a direction to look elsewhere in the patient's chart for details.

Physical examination

Consensus opinion supports the inclusion of height, weight, blood pressure and visual acuity screening as part of the physical examination. Headings for other examinations have been included as reasonable for the purpose of case-finding.

Blood pressure: The AMA recommends yearly blood pressure measurements ^[44]. The USPSTF has concluded that evidence is insufficient to recommend for or against routine screening for high blood pressure in children and adolescents for the reduction in risk of cardiovascular disease. However, blood pressure measurement to detect early, treatable causes of secondary hypertension is recommended by the AAP, the AMA and the American Heart Association ^[206]. Guidelines for the proper measurement of blood pressure and diagnosis of hypertension are available ^[207].

Visual acuity screening: Visual acuity in this age group should be assessed at each periodic health visit and whenever complaints occur ^[208].

GU examination and sexual maturity rating: Genitourinary (GU) examination and female breast examination should be approached with clear ethical standards and sensitivity; a guideline is available from the Canadian Paediatric Society ^[209]. A sexual maturity rating is recommended by most guidelines for adolescents ^[8]. An excellent resource for the assessment of delayed puberty, precocious puberty and short and tall stature is available in chapter 8 of Neinstein *et al.* ^[210].

Scoliosis: Screening for idiopathic scoliosis in asymptomatic adolescents is not recommended by the USPSTF or the CTF-PHC ^[211]. There is evidence that asymptomatic individuals have a mild clinical course and interventions, such as braces and exercise, may not improve back pain or quality of life. The potential harms are unnecessary medical evaluations and adverse psychological effects, especially related to wearing corrective braces. The USPSTF also states that clinicians should evaluate scoliosis when it presents as a symptom or is found incidentally ^[212]. Screening is still recommended by the American Academy of Orthopaedic Surgeons ^[213] and the AAP, but with little evidence to support this position ^{[214][215]}.

Assessment, immunization and medications

Laboratory investigations

Apart from a rubella titre for adolescent females, evidence does not support routine laboratory investigations ^[3]^[79]^[195].

A high index of suspicion should be maintained for iron deficiency in menstruating females. Those with dietary, ethnic or other risk factors should be considered for screening. When screening for iron deficiency, ferritin, not haemoglobin, is the most sensitive and specific measurement ^[78]480]. It is important to remember that ferritin is an acute phase reactant and as such, it may be elevated in certain pathologic states.

Sickle cell screening in at-risk populations is recommended for newborns, but insufficient evidence exists for a recommendation on hemoglobinopathy screening in older children and adolescents ^{[216][217]}.

Lipid and plasma glucose screening should be performed on overweight or obese children over the age of 10^[38]. Evidence for routine screening is lacking ^[218].

Immunization and TB screening

Immunization recommendations and reminders are included as per current guidelines from the Public Health Agency of Canada's National Advisory Committee on Immunization (NACI) ^[219]. Vaccination schedules vary somewhat among provinces and territories. In this age group, the periodic health visit is a perfect opportunity to ensure that immunizations, including the annual influenza vaccine ^[220], are up-todate, and to discuss the need for travel or newer vaccines as they become available.

NACI guidelines recommend a routine childhood varicella immunization for healthy non-pregnant individuals. Children, adolescents or adults with a reliable history of varicella disease need not be vaccinated. For children 12 months to 12 years of age with an unknown or negative history of prior varicella infection, a single dose of vaccine is recommended. For persons aged 13 years and over, either immunization (two doses 4 to 6 weeks apart) or performing serologic testing is recommended, since up to 80% will be immune despite a negative history ^[221].

Tuberculosis screening should be limited to high-risk groups. Although active TB is uncommon among Canadian-born children, Aboriginal populations and recent immigrants are at increased risk ^[222].

A routine meningococcal conjugate vaccine dose in early adolescence is currently recommended even for those vaccinated in the first two years of life. The adolescent dose can be provided using a monovalent C conjugate vaccine or a quadrivalent conjugate meninogococcal vaccine for A, C, Y and W135. The quadrivalent vaccine should be given to children 2 years of age and older with primary antibody deficiencies ^[223][224].

A vaccine for human papillomavirus (HPV) is available for girls and young women aged 9 to 26 years. NACI has recommended vaccination for all girls aged 9 to 13, as well as for females aged 14 to 26 (if they are not already vaccinated). This includes females who are already sexually active as they are unlikely to have been exposed to all four of the HPV types covered by the vaccine ^{[225][226]}. Note that vaccination is not a substitute for cervical cancer screening ^[227].

Summary

The Greig Health Record is an evidence-based health supervision guide for clinicians caring for children and adolescents aged 6 to 17 years. It is meant to provide a template for periodic health visits and anticipatory guidance. Given the evolving nature of evidence and changing recommendations, the Greig Health Record is meant to be used as a guide only. Regular update to the statement and the tool are planned. It is important to remember that the periodic heath visit is not the only opportunity to address prevention. It is expected that physicians will use their discretion in selecting topics to discuss with each patient and the timing of the discussions.

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References

- 1. Rourke LL, Leduc DG, Rourke JT. Rourke Baby Record: Evidence-based infant/child health maintenance guide, 2006. http://www.rourkebabyrecord.ca (Accessed on February 25, 2010).
- 2. Public Health Agency of Canada. The Canadian Task Force on the Periodic Health Examination. The Canadian Guide to Clinical Preventive Health Care, 1994. http://www.phacaspc.gc.ca/publicat/clinic-clinique/index-eng.php (Accessed on February 25, 2010).
- 3. US Department of Health and Human Services. Agency for Healthcare Research and Quality. Guide to Clinical Preventive Services, 2009: Recommendations of the US Preventive Services Task Force. http://www.ahrq.gov/clinic/pocketgd.htm (Accessed on February 25, 2010).
- American Academy of Pediatrics, Committee on Practice and Ambulatory Medicine, Bright Futures Steering Committee. Recommendations for preventive pediatric health care. Pediatrics 2007;120:1376.
- Hagen JF, Shaw JS, Duncan PM, eds. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, 3rd edn. Elk Grove Village: American Academy of Pediatrics, 2007.
- Elster AB, Kuznes NJ. AMA Guidelines for Adolescent Preventive Services (GAPS): Recommendations and Rationale. American Medical Association. Philadelphia: Williams & Wilkins, 1994.
- Canadian Task Force of Preventive Health Care. New grades for recommendations from the Canadian Task Force on Preventive Health Care. CMAJ 2003;169:207-8. http:// www.cmaj.ca/cgi/reprint/169/3/207 (Accessed on February 25, 2010).
- 8. Moyer VA, Butler M. Gaps in the evidence for well-child care: A challenge to our profession. Pediatrics 2004;114:1511-21. http://pediatrics.aappublications.org/cgi/content/full/ 114/6/1511#T1 (Accessed on February 25, 2010).
- 9. Richmond TK, Freed GL, Clark SJ, et al. Guidelines for adolescent well care: Is there consensus? Curr Opin Pediatr 2006;18:365-70.
- Cushman R, James W, Waclawik H. Physicians promoting bicycle helmets for children: A randomized trial. Am J Public Health 1991;81:1044-6.
- 11. DiGuiseppi CG, Rivara FP, Koepsell T, Polissar L. Bicycle helmet use by children. Evaluation of a community-wide helmet campaign. JAMA 1989;262:2256-61.
- 12. Stevens MM, Olson AL, Gaffney CA, Tosteson TD, Mott LA, Starr P. A pediatric, practice-based, randomized trial of drink-

ing and smoking prevention and bicycle helmet, gun, and seatbelt safety promotion. Pediatrics 2002;109:490-7.

- Canadian Paediatric Society, Adolescent Health Committee [Principal author: D Sacks]. Age limits and adolescents. Paediatr Child Health 2003;8:577. http://www.cps.ca/english/statements/AM/ah03-02.htm (Accessed on February 25, 2010)
- Montalto NJ. Implementing the guidelines for adolescent preventive services. Am Fam Physician 1998;57:2181-8, 2189-90. http://www.aafp.org/afp/980501ap/montalto.html (Accessed on February 25, 2010).
- 15. Dietitians of Canada, Canadian Paediatric Society, Nutrition Committee, The College of Family Physicians of Canada, Community Health Nurses Association of Canada. The use of growth charts for assessing and monitoring growth in Canadian infants and children. Paediatr Child Health 2004;9:171-80
- American Medical Association. Guidelines for Adolescent Preventive Services (GAPS). Recommendations Monograph, 1997. http://www.ama-assn.org/ama/upload/mm/39/gapsmono.pdf (Accessed on February 25, 2010).
- Dinkevich E, Hupert J, Moyer VA. Evidence-based well child care. BMJ 2001;323:846-9.
- Hall DMB, Elliman D. Health for all children. Rev. 4th edn. Oxford: Oxford University Press, 2006: pp. 341,348.
- Northern Ireland, Department of Health, Social Services and Public Safety. Guidance and Principles of Practice for Professional Staff. Health for all children. 2006. http:// www.dhsspsni.gov.uk/ guidance_and_principals_of_practice_for_professional_staff.pdf

(Accessed on February 25, 2010).

- Klein JD, Matos Auerbach M. Improving adolescent health outcomes. Minerva Pediatr 2002;54:25-39.
- Sacks D, Westwood M. An approach to interviewing adolescents. Paediatr Child Health 2003;8:554-6.
- 22. Westwood M, Pinzon J. Adolescent male health. Paediatr Child Health 2008;13:31-36.
- 23. Grant C, Elliott A, Meglio GD, Lane M, Norris M. What teenagers want: Tips on working with today's youth. Paediatr Child Health 2008;13:15-8.
- Dibden L, Kaufman M. Confidentiality for adolescents in the patient/physician relationship. Paediatr Child Health 1997;2:19-20.
- Morton WJ, Westwood M. Informed consent in children and adolescents. Paediatr Child Health 1997;2:329-33.
- Canadian Paediatric Society, Bioethics Committee [Principal author: C Harrison]. Treatment decisions regarding infants, children and adolescents. Paediatr Child Health 2004;9:99-103. http://www.cps.ca/english/statements/B/ b04-01.htm (Accessed on February 25, 2010).
- Canadian Paediatric Society, Adolescent Health Committee [Principal authors: M Kaufman and J Pinzon]. Transition to adult care for youth with special health care needs. Paediatr Child Health 2007;12:785-8. http://www.cps.ca/English/statements/AM/AH07-01.htm (Accessed on February 25, 2010).
- 28. Secker D, Armisted C, Corby L, de Groh M, Marchand V, Rourke L, Misskey E. Promoting Optimal Monitoring of Child Growth in Canada Using the New WHO Growth Charts. A Collaborative Statement from Dieticians of Canada, Canadian Paediatric Society, The College of Family Physicians of Canada, and Community Health Nurses of Canada. Paediatr Child Health 2010;15(2):77-9. http://www.cps.ca/english/publications/CPS10-01.htm (Accessed on March 3, 2010).

- 29. Centers for Disease Control and Prevention, National Center for Health Statistics, 2000. CDC Growth Charts: United States. http://www.cdc.gov/growthcharts/ (Accessed on February 25, 2010).
- World Health Organization. The WHO Child Growth Standards. http://www.who.int/childgrowth/en/ (Accessed on February 25, 2010).
- 31. World Health Organization. Growth reference data for 5-19 years. 2007.
- 32. http://www.who.int/growthref/en/ (Accessed on February 25, 2010).
- Plourde G. Preventing and managing pediatric obesity. Can Fam Physician, 2006. http://www.cfpc.ca/cfp/2006/Mar/ vol52-mar-cme-1.asp (Accessed on February 25, 2010).
- Baker JL, Olsen LW, Sørensen TIA. Childhood body-mass index and the risk of coronary heart disease in adulthood. N Engl J Med 2007;357:2329-37. http://content.nejm.org/cgi/content/full/357/23/2329?
 linkType=FULL&journalCode=nejm&resid=357/23/2329 (Accessed on February 25, 2010).
- Stovitz SD, Pereira MA, Vazquez G, Lytle LA, Himes JH. The interaction of childhood height and childhood BMI in the prediction of young adult BMI. Obesity 2008 Oct;16(10):2336-41.
- Rao G. Childhood obesity: Highlights of AMA expert committee recommendations. Am Fam Physician. 2008 Jul 1;78(1): 56-63. http://www.aafp.org/afp/20080701/56.html (Accessed on February 25, 2010).
- Neumark-Sztainer D. Preventing obesity and eating disorders in adolescents: What can health care providers do? J Adolesc Health 2009;44(3):206-13.
- Watson WJ, Cellupica U, OMA Child Health Committee. Practical aspects of managing the overweight/obese child in office practice. Ontario Medical Review 2007;74:37-40.
- Lau DC, Douketis JD, Morrison KM, Hramiak IM, Sharma AM, Ur E; Obesity Canada Clinical Practice Guidelines Expert Panel. 2006 Canadian clinical practice guidelines on the management and prevention of obesity in adults and children [summary]. CMAJ 2007;176:S1-13. http://www.cmaj.ca/cgi/data/ 176/8/S1/DC1/1 (Accessed on February 25, 2010).
- 40. Whitlock EP, Williams SB, Gold R, Smith PR, Shipman SA. Screening and interventions for childhood overweight: A summary of evidence for the US Preventive Services Task Force. Pediatrics 2005;116:e125-e144. http://pediatrics.aappublications.org/cgi/content/full/116/1/e125 (Accessed on February 25, 2010).
- Resnicow K, Davis R, Rollnick S. Motivational interviewing for pediatric obesity: Conceptual issues and evidence review. J Am Diet Assoc 2006;106:2024-33.
- 42. Wake M, Baur LA, et al. Outcomes and costs of primary care surveillance and intervention for overweight or obese children: The LEAP 2 randomised controlled trial. BMJ 2009 Sep 3;339:b3308.
- Zuckerbrot RA, Cheung AH, Jensen PS, Stein REK, Laraque D; GLAD-PC Steering Group. Guidelines for adolescent depression in primary care (GLAD-PC): I. Identification, assessment, and initial management. Pediatrics 2007;120:e1299-e1312. http://pediatrics.aappublications.org/cgi/content/full/120/5/e1299 (Accessed on February 25, 2010).
- 44. Valdez R, Greenlund KJ, Khoury MJ, Yoon PW. Is family history a useful tool for detecting children at risk for diabetes and cardiovascular diseases? A public health perspective. Pediatrics

2007;120:S78-86. http://pediatrics.aappublications.org/cgi/ content/full/120/SUPPLEMENT_2/S78 (Accessed on February 25, 2010).

- 45. US Department of Health and Human Services. Clinician's Handbook of Preventive Services, 2nd edn. PPIP. Put Prevention into Practice. 1998. http://www.ncbi.nlm.nih.gov/books/ bv.fcgi?rid=hstat6.chapter.4489 (Accessed on February 25, 2010).
- 46. US Preventive Services Task Force. Screening and Treatment for Major Depressive Disorder in Children and Adolescents: US Preventive Services Task Force Recommendation Statement. Pediatrics 2009;123:1223-8. http://www.pediatrics.org/ cgi/content/full/123/4/1223 (Accessed on February 25, 2010).
- Steele MM, Doey T. Suicidal behaviour in children and adolescents. Part 2: Treatment and prevention. Can J Psychiatry 2007;52:358-458.
- Jensen P, Cheung A, Levitt A, Zuckerbrot R. Guidelines for Adolescent Depression – Primary Care (GLAD-PC). http:// www.glad-pc.org/ (Accessed on February 25, 2010).
- 49. Shain BN; American Academy of Pediatrics, Committee on Adolescence. Suicide and suicide attempts in adolescents. Pediatrics 2007;120:669-676. http:// pediatrics.aappublications.org/cgi/reprint/120/3/669.pdf (Accessed on February 25, 2010).
- Stein REK, Zitner LE, Jensen PS. Interventions for adolescent depression in primary care. Pediatrics 2006;118:669-682. http://pediatrics.aappublications.org/cgi/content/full/ 118/2/669 (Accessed on February 25, 2010).
- Gladsone TR, Beardslee. The prevention of depression in children and adolescents: A review. Can J Psychiatry 2009;54(4): 212-21.
- 52. Canadian Paediatric Society. Mental Health: Screening Tools and Rating Scales. http://www.cps.ca/english/membership/ ScreeningTool.htm. Available to CPS members only. (Accessed on February 25, 2010).
- 53. Sadovsky R. Common myths about pubertal development. Am Fam Physician 2000;62, http://www.aafp.org/afp/20000915/ tips/8.html (Accessed on February 25, 2010).
- 54. Kaplowitz PB, Oberfield SE. Reexamination of the age limit for defining when puberty is precocious in girls in the United States: Implications for evaluation and treatment. Drug and Therapeutics and Executive Committees of the Lawson Wilkins Pediatric Endocrine Society. Pediatrics 1999;104:936.41.
- 55. Parent AS, Teilmann G, Juul A, Skakkebaek NE, Toppari J, Bourguignon JP. The timing of normal puberty and the age limits of sexual precocity: Variations around the world, secular trends, and changes after migration. Endocr Rev 2003;24:668-93.
- Kaplowitz PB. Precocious Puberty. eMedicine, 2007. http:// www.emedicine.com/ped/topic1882.htm (Accessed on February 25, 2010).
- 57. Dorn LD, Rotenstein D. Early puberty in girls: The case of premature adrenarche. Women's Health Issues 2004;14:177-83.
- Neinstein LS, Gordon CM, Katzman DK, Rosen DS, Woods ER. Adolescent Health Care: A Practical Guide. 5th edn. Philadelphia: Lippincott Williams & Wilkins, 2007;1534.
- Canadian Paediatric Society, Adolescent Health Committee [Principal author: M Kaufman]. Adolescent sexual orientation. Paediatr Child Health 2008;13:619-23. http://www.cps.ca/eng-

lish/statements/AM/AH08-03.htm (Accessed on March 3, 2010).

- 60. US Department of Health and Human Services. Agency for Healthcare Research and Quality. US Preventive Services Task Force. Behavioral Counseling to Prevent Sexually Transmitted Infections. Recommendation Statement. December 2008. http://www.ahrq.gov/clinic/uspstf08/sti/stirs.htm (Accessed on February 25, 2010).
- 61. Kamb ML, Fishbein M, Douglas JM Jr, et al. Efficacy of risk-reduction counseling to prevent human immunodeficiency virus and sexually transmitted diseases: A randomized controlled trial. Project RESPECT Study Group. JAMA 1998;280;1161-7.
- Public Health Agency of Canada. Canadian Guidelines on Sexually Transmitted Infections. http://www.phac-aspc.gc.ca/stdmts/sti-its/index-eng.php (Accessed on February 25, 2010).
- Centers for Disease Control and Prevention. United States Department of Health and Human Services. Sexually Transmitted Diseases. Treatment Guidelines 2006. http://www.cdc.gov/STD/treatment/2006/toc.htm (Accessed on February 25, 2010).
- 64. Society of Obstetricians and Gynecologists of Canada, Black A, Francoeur D, et al. Canadian contraception consensus. J Obstet Gynaecol Can 2004;26:347-87. http://www.sogc.org/ guidelines/public/143E-CPG1-February2004.pdf (Accessed on February 25, 2010).
- 65. Society of Obstetricians and Gynaecologists of Canada, Genetics Committee, The Motherisk Program, Wilson RD, et al. Preconceptional vitamin/folic acid supplementation 2007: The use of folic acid in combination with a multivitamin supplement for the prevention of neural tube defects and other congenital anomalies. J Obstet Gynaecol Can 2007;29:1003-26. http://www.sogc.org/guidelines/documents/

guiJOGC201JCPG0712.pdf (Accessed on February 25, 2010).

- 66. McLachlin CM, Mai V, Murphy J, Fung Kee Fung M, Chambers A, et al. Cervical screening: A clinical practice guideline. Cancer Care Ontario May 20, 2005. http:// www.cancercare.on.ca/pdf/pebc_cervical_screen.pdf (Accessed on February 25, 2010).
- 67. ACOG Practice Bulletin No. 109: Cervical Cytology Screening. Obstetrics and Gynecology. 2009 Dec; 114(6):1409-20.
- 68. Public Health Agency of Canada. Notifiable Disease On-Line. Notifiable Disease Incidence by Age Group. http://dsolsmed.phac-aspc.gc.ca/dsol-smed/ndis/c_age_e.html (Accessed on February 25, 2010).
- US Preventive Services Task Force. Screening for chlamydial infection: US Preventive Services Task Force recommendation statement. Ann Intern Med 2007;147:128-34. http:// www.ahrq.gov/Clinic/uspstf08/sti/stiart.pdf (Accessed on February 25, 2010).
- US Preventive Services Task Force. Screening for HIV: Recommendation statement. Ann Intern Med 2005;143:32-7. http://www.annals.org/cgi/content/full/143/1/32 (Version current at December 27, 2009).
- Calonge N; US. Preventive Services Task Force. Screening for syphilis infection: Recommendation statement. Ann Fam Med 2004;2:362-5. http://www.annfammed.org/cgi/content/full/ 2/4/362 (Accessed on February 25, 2010).
- Ma R. One-to-one counselling can reduce STI risk. Practitioner 2007;251:81-7.
- 73. US Department of Health and Human Services. Agency for Healthcare Research and Quality. US Preventive Services Task

Force (USPSTF), Meyers D, Wolff T, et al. USPSTF recommendations for STI screening. Am Fam Physician 2008;77:819-24. http://www.ahrq.gov/CLINIC/uspstf08/ methods/stinfections.htm (Accessed on February 25, 2010).

- Kirkham C, Harris S, Grzybowski S. Evidence-based prenatal care: Part I. General prenatal care and counseling issues. Am Fam Physician 2005;71:1307-16. http://www.aafp.org/afp/ 20050401/1307.html (Accessed on February 25, 2010).
- Kirkham C, Harris S, Grzybowski S. Evidence-based prenatal care: Part II. Third-trimester care and prevention of infectious diseases. Am Fam Physician 2005;71:1555-60. http:// www.aafp.org/afp/20050415/1555.html (Accessed on February 25, 2010).
- Deligeoroglou E, Tsimaris P, Deliveliotou A, Christopoulos P, Creatsas G. Menstrual disorders during adolescence. Pediatr Endocrinol Rev 2006;3 Suppl 1:150-9.
- Harel Z. Dysmenorrhea in adolescents and young adults: Etiology and management. J Pediatr Adolesc Gynecol 2006;19:363-71.
- Houston AM, Abraham A, Huang Z, D'Angelo LJ. Knowledge, attitudes and consequences of menstrual health in urban adolescent females. J Pediatr Adolesc Gynedcol 2006;19:271-5.
- 79. US Preventive Services Task Force. Screening for iron deficiency anemia, including iron supplementation for children and pregnant women: Recommendation statement. Am Fam Physician 2006;74:461-6.
- Australian Government, National Health and Medical Research Council. Child Health Surveillance and Screening: A Critical Review of the Evidence. 2002. http://nhmrc.gov.au/ publications/synopses/ch42syn.htm (Accessed on February 25, 2010).
- Government of British Columbia, BC Health Services, Guidelines and Protocols Advisory Committee, and British Columbia Medical Association. Investigation and Management of Iron Deficiency. Revised 2004. http://www.bcguidelines.ca/ gpac/pdf/irondef.pdf (Accessed on February 25, 2010).
- Lipskie TL. Resource File: A Summary of Cancer Screening Guidelines. Chronic Diseases in Canada. Public Health Agency of Canada. 2000;19. http://www.phac-aspc.gc.ca/publicat/ cdic-mcc/19-3/e_e.html (Accessed on February 25, 2010).
- Baxter N, Canadian Task Force on Preventive Health Care. Preventive health care, 2001 update: Should women be routinely taught breast self-examination to screen for breast cancer? CMAJ 2001;164:1837-46. http://www.cmaj.ca/cgi/content/ full/164/13/1837 (Accessed on February 25, 2010).
- World Health Organization. Nutrition in adolescence Issues and Challenges for the Health Sector. WHO Discussion Papers on Adolescence. 2005. http://whqlibdoc.who.int/publications/2005/9241593660_eng.pdf (Accessed on February 25, 2010).
- World Health Organization, Department of Child and Adolescent Health and Development. A critical link: Interventions for physical growth and psychological development. A Review. 1999. http://www.who.int/child_adolescent_health/documents/chs_cah_99_3/en (Accessed on February 25, 2010).
- Feskanich D, Rockett HR, Colditz GA. Modifying the Healthy Eating Index to assess diet quality in children and adolescents. J Am Diet Assoc 2004;104:1375-83.
- Health Canada. Eating Well with Canada's Food Guide. http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index_e.html (Accessed on February 25, 2010).

- Gillman MW, Rifas-Shiman SL, Frazier AL, et al. Family dinner and diet quality among older children and adolescents. Arch Fam Med 2000;9:235-240. http://archfami.ama-assn.org/cgi/content/full/9/3/235 (Accessed on February 25, 2010).
- Neumark-Sztainer D, Eisenberg ME, Fulkerson JA, Story M, Larson NI. Family meals and disordered eating in adolescents: Longitudinal findings from project EAT. Arch Pediatr Adolesc Med 2008;162:17-22.
- 90. Taveras EM, Berkey CS, Rigas-Shiman SL, et al. Association of consumption of fried food away from home with body mass index and diet quality in older children and adolescents. Pediatrics 2005;116:e518-e524. http:// pediatrics.aappublications.org/cgi/content/full/116/4/e518 (Accessed on February 25, 2010).
- Davies JH, Evans BA, Gregory JW. Bone mass acquisition in healthy children. Arch Dis Child 2005;90:373-8.
- Saggese G, Baroncelli GI, Bertelloni S. Puberty and bone development. Best Pract Res Clin Endocrinol Metab 2002;16:53-64.
- Matkovic V. Calcium and peak bone mass. J Intern Med 1992;231:151-60.
- Lehtonen-Veromaa MK, Möttönen TT, Nuotio IO, Irjala KM, Leino AE, Viikari JS. Vitamin D and attainment of peak bone mass among peripubertal Finnish girls: A 3-y prospective study. Am J Clin Nutr 2002;76:1446-53.
- Gardiner P, Wornham W. Recent review of complementary and alternative medicine used by adolescents. Curr Opin Pediatr 2000;12:298-302.
- Zollman C, Vickers A. What is complementary medicine? BMJ 1999;319:693-6.
- Canadian Paediatric Society, Community Paediatrics Committee [Principal author: L Spigelblatt]. Homeopathy in the paediatric population. Paediatr Child Health 2005;10:173-7. http:// www.cps.ca/english/statements/cp/cp05-01.htm (Accessed on February 25, 2010).
- Canadian Paediatric Society, Drug Therapy and Hazardous Substances Committee [Principal authors: S Vohra and T Clifflord]. Children and natural health products: What a clinician should know. Paediatr Child Health 2005;10:227-32http:// www.cps.ca/english/statements/DT/DT05-01.htm (Accessed on February 25, 2010).
- 99. Kemper KJ, Vohra S, Walls R; Task Force on Complementary and Alternative Medicine, the Provisional Section on Complementary, Holistic, and Integrative Medicine. The use of complementary and alternative medicine in pediatrics. Pediatrics 2008;122;1374-1386. http://www.pediatrics.org/cgi/content/ full/122/6/1374 (Accessed on February 25, 2010).
- 100. Johnston B, Vohra S. Which medications used in paediatric practice have demonstrated natural health product-drug interactions? Part A: Evidence-based answer and summary. Paediatr Child Health 2006;11:671-2.
- Roth D, Johnston B, Vohra S. Which medications used in paediatric practice have demonstrated natural health product-drug interactions? Part B: Clinical commentary. Paediatr Child Health 2006;11:673-4.
- 102. Canadian Paediatric Society, Adolescent Medicine Committee [Principal authors: D Doherty, JY Frappier, M Kaufman, L Pancer and D Sacks]. Eating disorders in adolescents: Principles of diagnosis and treatment. Paediatr Child Health 1998;3:189-92. http://www.cps.ca/english/statements/AM/ am96-04.htm (Accessed on February 25, 2010).

- Canadian Paediatric Society, Adolescent Health Committee [Principal author: S Findlay]. Dieting in adolescence. Paediatr Child Health 2004;9:487491. http://www.cps.ca/english/ statements/AM/AH04-01.htm#TABLE%201 (Accessed on February 25, 2010).
- Neumark-Sztainer DR, Wall MM, Haines JI, Story MT, Sherwood NE, van den Berg PA. Shared risk and protective factors for overweight and disordered eating in adolescents. Am J Prev Med 2007;33:359-369.
- 105. Canadian Paediatric Society, Healthy Active Living Committee [Principal authors: C LeBlanc]. Healthy active living for children and youth. Paediatr Child Health 2002;7:339-45. http:// www.cps.ca/english/statements/HAL/HAL02-01.htm (Accessed on February 25, 2010).
- Tremblay MS, Willms JD. Is the Canadian childhood obesity epidemic related to physical inactivity? Int J Obes Relat Metab Disord 2003;27:1100-5.
- Ekeland E, Heian F, Hagen KB, Abbott J, Nordheim L. Exercise to improve self-esteem in children and young people. Cochrane Database Syst Rev 2004;(1):CD003683.
- Iannotti RJ, Kogan MD, Janssen I, Boyce WF. Patterns of adolescent physical activity, screen-based media use and positive and negative health indicators in the US and Canada. J Adolescent Health 2009;44(5):493-9.
- NIH Consensus Development Panel on Physical Activity and Cardiovascular Health. Physical activity and cardiovascular health. JAMA 1996;276:241-6.
- 110. Washington RL. Interventions to reduce cardiovascular risk factors in children and adolescents. Am Fam Physician 1999;59:2211-8. http://www.aafp.org/afp/990415ap/ 2211.html (Accessed on February 25, 2010).
- 111. Canadian Paediatric Society, Psychosocial Paediatrics Committee [Principal authors: A Ford-Jones, J Brant and P Nieman]. Impact of media use on children and youth. Paediatr Child Health 2003;8:301-6. http://www.cps.ca/english/statements/ PP/pp03-01.htm (Accessed on February 25, 2010).
- American Academy of Pediatrics, Committee on Public Education. Children, adolescents, and television. Pediatrics 2001;107:423-6.
- Robinson TN. Reducing children's television viewing to prevent obesity: A randomized controlled trial. JAMA 1999;282:1561-7.
- 114. Berkey CS, Rockett HR, Field AE, et al. Activity, dietary intake, and weight changes in a longitudinal study of preadolescent and adolescent boys and girls. Pediatrics 2000;105;e56.
- 115. Norris ML. HEADSS up: Adolescents and the Internet. Paediatr Child Health 2007;12:211-6.
- 116. Canadian Paediatric Society, Community Paediatrics Committee [Principal author: M Feldman]. Guiding parents in their search for high-quality health information on the Internet. Paediatr Child Health 2007;12:239:40. http://www.cps.ca/english/statements/CP/PracticePoint.htm (Accessed on February 25, 2010).
- 117. Harrison, RV. Noise-induced hearing loss in children: A 'less than silent' environmental danger. Paediatr Child Health 2008;13:377-82.
- Rabinowitz PM. Noise-induced hearing loss. Am Fam Physician 2000;61:2749-56, 2759-60. http://www.aafp.org/afp/ 20000501/2749.html (Accessed on February 25, 2010).
- 119. World Health Organization. Occupational and community noise. Revised February 2001.

- 120. Health Canada. Hearing Loss and Leisure Noise. January 2005. http://www.hc-sc.gc.ca/iyh-vsv/environ/leisure-loisirs_e.html (Accessed on February 25, 2010).
- Meltzer LJ, Mindell JA. Sleep and sleep disorders in children and adolescents. Psychiatr Clin North Am 2006;29:1059-76.
- 122. American Academy of Pediatrics, Section on Pediatric Pulmonology and Subcommittee on Obstructive Sleep Apnea Syndrome. Clinical Practice Guideline: Diagnosis and management of childhood obstructive sleep apnea syndrome. Pediatrics 2002;109:704-12.
- 123. Sadeh A, Raviv A, Gruber R. Sleep patterns and sleep disruptions in school-age children. Dev Psychol 2000;36:291-301. http://www.apa.org/pubs/journals/releases/dev-363291.pdf (Accessed on February 25, 2010).
- 124. Pollak CP, Bright D. Caffeine consumption and weekly sleep patterns in US seventh-, eighth-, and ninth-graders. Pediatrics 2003;111:42-6. http://pediatrics.aappublications.org/cgi/ reprint/111/1/42 (Accessed on February 25, 2010).
- Wolfson AR, Carskadon MA. Understanding adolescents' sleep patterns and school performance: A critical appraisal. Sleep Med Rev 2003;7:491-506.
- Hazen E, Schlozman S, Beresin E. Adolescent psychological development: A review. Pediatr Rev 2008;29:161-8.
- 127. Millman RP, Working Group on Sleepiness in Adolescents/ Young Adults, Amerian Academy of Pediatrics Committee on Adolescence. Excessive sleepiness in adolescents and young adults: Causes, consequences, and treatment strategies. Pediatrics 2005;115:1774-86. http:// pediatrics.aappublications.org/cgi/content/full/115/6/1774 (Accessed on February 25, 2010).
- 128. Iglowstein I, Jenni OG, Molinari L, Largo RH. Sleep duration from infancy to adolescence: Reference values and generational trends. Pediatrics 2003;111:302-7. http:// pediatrics.aappublications.org/cgi/content/full/111/2/302 (Accessed on February 25, 2010).
- 129. Canadian Paediatric Society, Psychosocial Paediatrics Committee [Principal author: P Nieman and S Shea]. Effective discipline for children. Paediatr Child Health 2004;9:37.41. http:// www.cps.ca/english/statements/PP/pp04-01.htm (Accessed on February 25, 2010).
- 130. Thompson DC, Rivara FP, Thompson R. Helmets for preventing head and facial injuries in bicycling. Cochrane Database Syst Rev 2000;(2):CD001855.
- Thomas S, Acton C, Nixon J, Battistutta D, Pitt WR, Clark R. Effectiveness of bicycle helmets in preventing head injury in children: Case-control study. BMJ 1994;308:173-6.
- 132. Maimaris C, Summers CL, Browning C, Palmer CR. Injury patterns in cyclists attending an accident and emergency department: A comparison of helmet wearers and non-wearers. BMJ 1994:308:1537-40.
- 133. Royal S, Kendrick D, Coleman T. Promoting bicycle helmet wearing by children using non-legislative interventions: Systematic review and meta-analysis. Inj Prev 2007;13;162-7.
- 134. Macpherson AK, To TM, Macarthur C, Chipman ML, Wright JG, Parkin PC. Impact of mandatory helmet legislation on bicycle-related head injuries in children: A population-based study. Pediatrics 2002;110:e60. http://pediatrics.aappublications.org/ cgi/content/full/110/5/e60 (Accessed on February 25, 2010).
- 135. Wesson DE, Stephens D, Lam K, Parsons D, Spence L, Parkin PC. Trends in pediatric and adult bicycling deaths before and after passage of a bicycle helmet law. Pediatrice 2008;122(3):

605-10. http://pediatrics.aappublications.org/cgi/content/full/122/3/605 (Accessed on February 25, 2010).

- 136. Canadian Paediatric Society. Are We Doing Enough? A status report on Canadian public policy and child and youth health. 2009 edn. http://www.cps.ca/English/Advocacy/ StatusReport2009.pdf (Accessed on February 25, 2010).
- 137. American Academy of Pediatrics, Committee on Injury and Poison Prevention. Selecting and using the most appropriate car safety seats for growing children: Guidelines for counseling parents. Pediatrics 2002;109:550-553.
- Durbin DR, Elliot MR, Winston FK. Belt-positioning booster seats and reduction in risk of injury among children in vehicle crashes. JAMA 2003;289:2835-2840. http:// jama.highwire.org/cgi/content/abstract/289/21/2835 (Accessed on February 25, 2010).
- 139. Ramsey A, Simpson E, Rivara FP. Booster seat use and reasons for nonuse. Pediatrics 2000;106:e20. http:// pediatrics.aappublications.org/cgi/content/full/106/2/e20 (Accessed on February 25, 2010).
- 140. Safe Kids Canada. Provincial and Territorial Car Seat and Booster Seat Legislation. May 2008.
- 141. DiGuiseppi C, Roberts IG. Individual-level injury prevention strategies in the clinical setting. Future Child 2000;10:53-82.
- Cummings P, Wells JD, Rivara FP. Estimating seat belt effectiveness using matched-pair cohort methods. Accid Anal Prev 2003;35:143-9.
- Winston FK, Durbin DR, Kallan MJ, Moll EK. The danger of premature graduation to seat belts for young children. Pediatrics 2000;105:1179-83.
- 144. Transport Canada. Safety in the Car. 2008. http:// www.tc.gc.ca/roadsafety/safedrivers/childsafety/car/index.htm (Accessed on February 25, 2010).
- 145. Safe Kids Canada. Child Passenger Safety.
- 146. Canadian Paediatric Society, Injury Prevention Committee [Principal author: C van Schaik]. Transportation of infants and children in motor vehicles. Paediatr Child Health 2008;13:313-8. http://www.cps.ca/english/statements/IP/ ip08-01.htm (Accessed on February 25, 2010).
- 147. D'Angelo LJ, Halpern-Felsher BL. From the exam room to behind the wheel: Can healthcare providers affect automobile morbidity and mortality in teens? Am J Prev Med 2008;35:S304-9.
- 148. American Academy of Pediatrics, Committee on Injury, Violence, and Poison Prevention and Committee of Adolescence. The teen driver. Pediatrics 2006;118:2570-2581.
- McCarthy DM, Lynch AM, Pedersen SL. Driving after use of alcohol and marijuana in college students. Psychol Addict Behav 2007;21:425-30.
- Hartling L, Wiebe N, Russell K, Petruk J, Spinola C, Klassen TP. Graduated driver licensing for reducing motor vehicle crashes among young drivers. Cochrane Database Syst Rev 2004;(2):CD003300.
- Williams AF. Earning a driver's license. Public Health Rep 1997;112:452-61.
- Mayhew DR, Simpson HM, Desmond K, Williams AF. Specific and long-term effects of Nova Scotia's graduated licensing program. Traffic Inj Prev 2003;4:91-7.
- Shope JT. Graduated driver licensing: Review of evaluation results since 2002. J Safety Res 2007;38:165-75.
- 154. Yanchar NL, Kennedy R, Russell C. ATVs: Motorized toys or vehicles for children? Inj Prev 2006;12:30-4.

- 155. Canadian Paediatric Society, Injury Prevention Committee [Principal author: L Warda]. Preventing injuries from all-terrain vehicles. Paediatr Child Health 2004;9:33740. http:// www.cps.ca/english/statements/IP/IP04-01.htm (Accessed on February 25, 2010).
- 156. Canadian Paediatric Society, Injury Prevention Committee [Principal author: R Stanwick]. Recommendations for snowmobile safety. Paediatr Child Health 2004;9:639-42. http:// www.cps.ca/english/statements/IP/IP04-02.htm (Accessed on February 25, 2010).
- 157. Canadian Paediatric Society, Adolescent Health Committee [Principal authors: JY Frappier, KA Leonard, D Sacks]. Youth and firearms in Canada. Paediatr Child Health 2005;10:473-7. http://www.cps.ca/english/statements/AM/AH05-02.htm (Accessed on February 25, 2010).
- Leonard KA. Firearm deaths in Canadian adolescents and young adults. Can J Public Health 1994;85:128-31.
- Duke N, Resnick MD, Borowsky IW. Adolescent firearm violence: Position paper of the Society for Adolescent Medicine. J Adolesc Health 2005;37:171-4.
- 160. Canadian Pediatric Society, Healthy Active Living Committee and Injury Prevention Committee; Canadian Academy of Sport Medicine, Pediatric Sport and Exercise Medicine Committee [Principal authors: L Purcell and J Philpott]. Trampoline use in homes and playgrounds. Paediatr Child Health 2007;12:501-5. http://www.cps.ca/english/statements/ip/ ip07-01.htm (Accessed on February 25, 2010).
- American Academy of Pediatrics, Committee on Injury, Violence, and Poison Prevention. Drowning in infants, children and adolescents. Pediatrics 2003;112;437-439.
- 162. Brenner RA; American Academy of Pediatrics, Committee on Injury, Violence, and Poison Prevention. Prevention of Drowning in Infants, Children and Adolescents. Technical Report. Pediatrics 2003;112:440-5. http:// aappolicy.aappublications.org/cgi/content/full/pediatrics; 112/2/437 (Accessed on February 25, 2010).
- Asher KN, Rivara FP, Felix D, Vance L, Dunne R. Water safety training as a potential means of reducing risk of young children's drowning. Inj Prev 1995;1:228-33.
- 164. American Academy of Pediatrics, Committee on Sports Medicine and Fitness and Committee on Injury and Poison Prevention. Swimming programs for infants and toddlers. Pediatrics 2000;105:868-870.
- Thompson DC, Rivara FP. Pool fencing for preventing drowning in children. Cochrane Database Syst Rev 2000; (2):CD0001047.
- 166. Canadian Paediatric Society, Injury Prevention Committee [Principal author: BH Nguyen and L Warda]. Swimming lessons for infants and toddlers. Paediatr Child Health 2003;8:113-4. http://www.cps.ca/english/statements/IP/ IP03-01.htm (Accessed on February 25, 2010).
- Blanksby BA, Parker HE, Bradley S, Ong V. Children's readiness for learning front crawl swimming. Aust J Sci Med Sport 1995;27:34-7.
- Gallagher RP, Hill GB, Bajdik CD, et al. Sunlight exposure, pigmentary factors, and risk of nonmelanocytic skin cancer. I. Basal cell carcinoma. Arch Dermatol 1995;131:157-63.
- Whiteman DC, Whiteman CA, Green AC. Childhood sun exposure as a risk factor for melanoma: A systematic review of epidemiologic studies. Cancer Causes Control 2001;12:69-82.

- 170. Saraiya M, Glanz K, Briss PA, et al. Interventions to prevent skin cancer by reducing exposure to ultraviolet radiation: A systematic review. Am J Prev Med 2004;27:422-66.
- 171. Rubenstein H, Sternbach MR, Pollack SH. Protecting the health and safety of working teenagers. Am Fam Physician 1999;60:575-80, 587-8.
- 172. Resnick MD, Bearman PS, Blum RW, et al. Protecting adolescents from harm. Findings from the National Longitudinal Study on Adolescent Health. JAMA 1997;278:823-32.
- 173. Moya J, Bearer CF, Etzel RA. Children's behavior and physiology and how it affects exposure to environmental contaminants. Pediatrics 2004;113:996-1006. http:// pediatrics.aappublications.org/cgi/content/full/113/4/S1/996 (Accessed on February 25, 2010).
- 174. Wigle DT, Arbuckle TE, Walker M, Wade MG, Liu S, Krewski D. Environmental hazards: Evidence for the effects on child health. J Toxicol Environ Health B Crit Rev 2007;10:3-39.
- 175. Wahlgren DR, Hovell MF, Meltzer EO, Meltzer SB. Involuntary smoking and asthma. Curr Opin Pulm Med 2001;6:31-6.
- 176. Stachan DP, Cook DG. Health effects of passive smoking. 1. Parental smoking and lower respiratory illness in infancy and early childhood. Thorax 1997;52:905-14.
- 177. Health Canada, Healthy Living. Insect Repellents. http:// www.hc-sc.gc.ca/hl-vs/iyh-vsv/life-vie/insect-eng.php (Accessed on March 4, 2010).
- 178. Canadian Paediatric Society. Keeping kids safe. http:// www.caringforkids.cps.ca/handouts/insect_repellents (Accessed on February 25, 2010).
- 179. Koren G, Matsui D, Bailey B. Deet-based insect repellents: Safety implications for children and pregnant and lactating women. CMAJ 2003;169(3) http://www.cmaj.ca/cgi/content/ full/169/3/209 (Accessed on February 25, 2010).
- Canada Safety Council. Public Safety. Children. http://safetycouncil.org/safety/public-safety/children/ (Accessed on February 25, 2010).
- Safe Kids Canada. http://www.safekidscanada.ca/safekidsCanada/ (Accessed on February 25, 2010).
- Canadian Paediatric Society. Keeping kids safe. http:// www.caringforkids.cps.ca/handouts/kidssafe-index (Accessed on March 3, 2010).
- 183. Canadian Paediatric Society, Infectious Diseases and Immunization Committee [Principal author: D Moore]. Needle stick injuries in the community. Paediatr Child Health 2008;13:205-10. http://www.cps.ca/English/statements/ID/ id08-01.htm (Accessed on February 25, 2010).
- 184. Howard BJ, Broughton DD, Committee on Psychosocial Aspects of Child and Family Health. The pediatrician's role in the prevention of missing children. Pediatrics 2004;114:1100-5. http://aappolicy.aappublications.org/cgi/content/full/pediatrics;114/4/1100 (Accessed on February 25, 2010).
- Canada Safety Council. What to Teach Children About Strangers. http://archive.safety-council.org/info/child/ strangers.html (Accessed on February 25, 2010).
- Griffin RS, Gross AM. Childhood bullying: current empirical findings and future directions for research. Aggression Violent Behav 2004;9:379-400.
- Lamb J, Pepler DJ, Craig W. Approach to bullying and victimization. Canadian Family Physician 2009 April;55(4):356-60. http://www.cfp.ca/cgi/reprint/55/4/356.pdf (Accessed on February 25, 2010).

- Rigby K. Consequences of bullying in schools. Can J Psychiatry 2003;48:583-90. http://ww1.cpa-apc.org:8080/Publications/ Archives/CJP/2003/october/rigby.asp (Accessed on February 25, 2010).
- Nansel TR, Overpeck M, Pilla RS, Ruan WJ, Simmons-Morton B, Scheidt P. Bullying behaviors among US youth: Prevalence and association with psychosocial adjustment. JAMA 2001;285:2094-100. http://jama.ama-assn.org/cgi/content/ full/285/16/2094 (Accessed on February 25, 2010).
- 190. Cohall A, Cohall R, Bannister H, Northridge M. Love shouldn't hurt: Strategies for health care providers to address adolescent dating violence. J Am Med Womens Assoc 1999;54:144-8.
- 191. Kids Help Phone. http://www.kidshelpphone.ca/ (Accessed on February 25, 2010).
- 192. Stephens MB. Preventive health counseling for adolescents. Am Fam Physician 2006;74:1151-6.
- 193. Kulig JW; American Academy of Pediatrics, Committee on Substance Abuse. Tobacco, alcohol, and other drugs: The role of the pediatrician in prevention, identification and management of substance abuse. Pediatrics 2005;115:816-821. http:// pediatrics.aappublications.org/cgi/content/full/115/3/816 (Accessed on February 25, 2010).
- 194. Gold DR, Wang X, Wypij D, Speizer FE, Ware JH, Dockery DW. Effects of cigarette smoking on lung function in adolescent boys and girls. N Engl J Med 1996;335:931-7.
- 195. Tobacco Consortium, Center for Child Health Research of the American Academy of Pediatrics; Pbert L, Moolchan ET, et al. The state of office-based interventions for youth tobacco use. Pediatrics 2003;111:e650-e660. http:// pediatrics.aappublications.org/cgi/content/full/111/6/e650 (Accessed on February 25, 2010).
- 196. Institute for Clinical Systems Improvement (ICSI). Health Care Guideline: Preventive services for children and adolescents. October 2008. http://www.icsi.org/ preventive_services_for_children_guideline_/ preventive_services_for_children_and_adolescents_2531.html (Accessed on February 25, 2010).
- 197. Ozer EM, Adams SH, Lustig JL, et al. Increasing the screening and counseling of adolescents for risky health behaviours: A primary care intervention. Pediatrics 2005;115;960-968. http://pediatrics.aappublications.org/cgi/reprint/ 115/4/960.pdf (Accessed on February 25, 2010).
- Loo SK, Bala NM, Clarke ME, Hornick JP. Child Abuse: Reporting and Classification in Health Care Settings. Health Canada. August 1998. http://www.phac-aspc.gc.ca/cm-vee/ publicat/pdf/child_e.pdf (Accessed on March 4, 2010).
- McDonald KC. Child abuse: Approach and management. Am Fam Physician 2007;75:221-8. http://www.aafp.org/afp/ 20070115/221.pdf (Accessed on February 25, 2010).
- Finkelhor D. Prevention of sexual abuse through educational programs directed toward children. Pediatrics 2007;120:640-5.
- Wurtele, Sandy K. Preventing sexual abuse of children in the twenty-first century: Preparing for challenges and opportunities. J Child Sex Abus 2009;18(1):1-18.
- MacMillan HL; Canadian Task Force on Preventive Health Care. Preventive health care, 2000 update: Prevention of child maltreatment. CMAJ 2000;163:1451-8. http://www.cmaj.ca/ cgi/content/full/163/11/1451 (Accessed on February 25, 2010).

- 203. Nygren P, Nelson HD, Klein J. Screening children for family violence: A review of the evidence for the US Preventive Services Task Force. Ann Fam Med 2004;2:161-9. http://www.annfammed.org/cgi/content/full/2/2/161 (Accessed on February 25, 2010).
- Lewis DW, Ismail AI. Periodic health examination, 1995 update: 2. Prevention of dental caries. The Canadian Task Force on the Periodic Health Examination. CMAJ 1995;152:836-46.
- Canadian Paediatric Society, Nutrition Committee [Principal author: J Godel]. The use of fluoride in infants and children. Paediatr Child Health 2002;7:569-72. http://www.cps.ca/english/statements/N/n02-01.htm (Accessed on February 25, 2010).
- 206. Van Cleave J, Heisler M, Devries JM, Joiner TA, Davis MM. Discussion of illness during well-child care visits with parents of children with and without special health care needs. Arch Pediatr Adolesc Med 2007;161:1170-5. http://archpedi.amaassn.org/cgi/content/full/161/12/1170 (Accessed on February 25, 2010).
- 207. US Preventive Services Task Force. Screening for high blood pressure: recommendations and rationale. Am Fam Physician 2003;68:2019-22. http://www.aafp.org/afp/2003/1115/ p2019.html (Accessed on February 25, 2010).
- 208. National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents. The fourth report on the diagnosis, evaluation, and treatment of high blood pressure in children and adolescents. Pediatrics 2004;114:555-576. http://pediatrics.aappublications.org/cgi/ content/full/114/2/S2/555 (Accessed on February 25, 2010).
- Canadian Paediatric Society, Community Paediatrics Committee [Principal author: M Amit]. Vision screening in infants, children and youth. Paeditr Child Health 2009;4:246-8. http://www.cps.ca/english/statements/CP/cp98-01.htm (Accessed on February 25, 2010).
- Canadian Paediatric Society, Community Paediatrics Committee [Principal author: S Woods]. Ethical approach to genital examination in children. Paediatr Child Health 1999;4:71. http://www.cps.ca/english/statements/CP/cp98-04.htm (Accessed on February 25, 2010).
- Neinstein LS, Gordon CM, Katzman DK, Rosen DS, Woods ER. Adolescent Health Care: A Practical Guide. 5th edn. Philadelphia: Lippincott Williams & Wilkins; 2007;136-55.
- 212. Goldbloom RB. Screening for idiopathic adolescent scoliosis. In: The Canadian Task Force on the Periodic Health Examination. The Canadian Guide to Clinical Preventive Health Care. Ottawa: Public Health Agency of Canada, 1994;346-54.
- 213. US Department of Health and Human Services. Agency for Healthcare Research and Quality. US Preventive Services Task Force. Screening for Idiopathic Scoliosis in Adolescents. http://www.ahrq.gov/clinic/3rduspstf/scoliosis/scoliors.htm (Accessed on February 25, 2010).
- American Academy of Orthopaedic Surgeons. Position Statement. School screening programs for the early detection of scoliosis. http://www.arthroscopy.com/sp13013.htm (Accessed on February 25, 2010).
- 215. Reamy BV, Slakey JB. Adolescent idiopathic scoliosis: Review and current concepts. Am Fam Physician 2001;64:111-6. http://www.aafp.org/afp/20010701/111.html (Accessed on February 25, 2010).
- 216. Netherlands Evaluation Study on Screening for Scoliosis (NESCIO) Group; Bunge EM, Juttmann RE, et al. Estimating

the effectiveness of screening for scoliosis: A case-control study. Pediatrics 2008;121:9-14.

- 217. US Department of Health and Human Services. Agency for Healthcare Research and Quality. US Preventive Services Task Force. Screening for Sickle Cell Disease in Newborns. September 2007. http://www.ahrq.gov/clinic/uspstf/uspshemo.htm (Accessed on February 25, 2010).
- 218. Goldbloom RB. Screening for Hemoglobinopathies in Canada. In: The Canadian Task Force on the Periodic Health Examination. The Canadian Guide to Clinical Preventive Health Care. Ottawa: Public Health Agency of Canada, 1994;206-18. http:// www.phac-aspc.gc.ca/publicat/clinic-clinique/pdf/s2c20e.pdf (Accessed on February 25, 2010).
- US Department of Health and Human Services. Agency for Healthcare Research and Quality. US Preventive Services Task Force. Screening for Lipid Disorders in Children. July 2007. http://www.ahrq.gov/clinic/uspstf/uspschlip.htm (Accessed on February 25, 2010).
- Public Health Agency of Canada. National Advisory Committee on Immunization (NACI). http://www.phac-aspc.gc.ca/ naci-ccni/ (Accessed on February 25, 2010).
- 221. Public Health Agency of Canada, National Advisory Committee on Immunization (NACI). Statement on influenza vaccination for the 2008-2009 season. CCDR 2008;34:ACS-3. http:// www.phac-aspc.gc.ca/publicat/ccdr-rmtc/08vol34/acs-3/indexeng.php (Accessed on February 25, 2010).
- 222. Public Health Agency of Canada, National Advisory Committee on Immunization (NACI). Update on Varicella. CCDR 2004;30:ACS-1. http://www.phac-aspc.gc.ca/publicat/ccdrrmtc/04vol30/acs-dcc-1/index-eng.php (Accessed on February 25, 2010).
- 223. Public Health Agency of Canada, The Lung Association. Canadian Tuberculosis Standards. 6th edn, 2007. http://www.phacaspc.gc.ca/tbpc-latb/pubs/tbstand07-eng.php (Accessed on February 25, 2010).
- 224. Public Health Agency of Canada, National Advisory Committee on Immunization (NACI). Update on the Invasive Meningococcal Disease and Meningococcal Vaccine Conjugate Recommendations. CCDR 2009;35:ACS-3. http://www.phacaspc.gc.ca/publicat/ccdr-rmtc/09vol35/acs-dcc-3/indexeng.php (Accessed on February 25, 2010).
- 225. Canadian Paediatric Society, Infectious Diseases and Immunization Committee [Principal authors: R Bortolussi and M Salvadori]. A new meningococcal conjugate vaccine: What should physicians know and do. Paediatr Child Health 2009;14:515-7 http://www.cps.ca/english/statements/ID/ ID09-02.htm (Accessed on February 25, 2010).
- 226. Public Health Agency of Canada, National Advisory Committee on Immunization (NACI). Statement on human papilloma virus vaccine. CCDR 2007;33:ACS-2. http://www.phacaspc.gc.ca/publicat/ccdr-rmtc/07pdf/acs33-02.pdf (Accessed on February 25, 2010).

- 227. Canadian Paediatric Society, Infectious Diseases and Immunization Committee and Adolescent Health Committee [Principal author: LM Samson]. Human papillomavirus vaccine for children and adolescents. Paediatr Child Health 2007;12:599-603. http://www.cps.ca/english/statements/ID/ ID07-01.htm (Accessed on February 25, 2010).
- 228. Markowitz LE, Dunne EF et al. Quadrivalent Human Papillomavirus Vaccine: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recomm Rep 2007;56(RR-2):1-24. http://www.cdc.gov/mmwr/preview/ mmwrhtml/rr5602a1.htm (Accessed on February 25, 2010).

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