

Preventive health care visits for children and adolescents aged six to 17 years: The Greig Health Record – Executive Summary

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Français en page 160

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The Greig Health Record is an evidence-based health promotion guide for clinicians caring for children and adolescents aged six 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 type 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 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

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 an older child and adolescent 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

The present statement was developed by first searching for available tools and recommendations for periodic health visits for children and adolescents aged six to 17 years. PubMed searches were performed using the terms “preventive services”, “prevention”, “screening” and “health promotion” in the years 1987 to 2009. It was

Les visites en soins de santé préventifs pour les enfants et les adolescents de six à 17 ans : Le relevé médical Greig – Résumé

Le relevé médical Greig est un guide probant de promotion de la santé à l'intention des cliniciens qui s'occupent d'enfants et d'adolescents de six à 17 ans. Il est conçu pour servir de modèle facile à utiliser lors des visites médicales périodiques et pour être adapté aux dossiers médicaux électroniques. Dans la mesure du possible, le relevé médical Greig contient l'information probante, et les preuves sont indiquées en caractères gras lorsqu'elles sont de bonne qualité et en italiques lorsqu'elles sont de qualité acceptable.

Les modèles de listes de vérification contiennent des volets sur le poids, la taille, l'indice de masse corporelle, les antécédents psychosociaux et le développement, l'alimentation, l'éducation et les conseils, les inquiétudes particulières, l'examen, l'évaluation, la vaccination et les médicaments. Ces listes de vérification s'accompagnent de trois pages de lignes directrices et ressources sélectionnées. On prévoit apporter des mises à jour régulières au document de principes et au relevé médical. On peut obtenir le relevé médical Greig, en anglais, à l'adresse www.cps.ca/english/CP/PreventiveCare.htm.

hoped that a tool would be found that was evidence based, simple to use, easy for year-to-year comparison by displaying data in column form, and 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 and 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 periodic health visits.

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Family history, Risk Factors, Allergies		The Greig Health Record: Ages 6, 7, 8, 9 (preventive health care visits are recommended every one to two years)				Name: Selected Guidelines and Resources: consult page 1 for **, page 2 for ***, page 3 for ***									
Date		Age 6	Age 7	Age 8	Age 9	D.O.B.:									
Measurements *	Wt.	BMI													
	Ht.	BMI percentile													
Psychosocial history and Development	<ul style="list-style-type: none"> • School & Activities • Peer relationships • Family relationships • Body changes* • Menstrual issues * • Snack / Candy / Sweets / junk-food • Supplements / CAM • Body Image / Dieting • Physical Activity • Electronic Media – TV / Computer / Hearing Protection • Sleep Issues • Effective Discipline • Helmet safety • Vehicle Safety – Seatbelts, Booster Seats • Home Safety / Firearms • Trampoline Safety • Water Safety • Sun Safety • Environmental Hazards – incl. Second Hand Smoke • Smoke Detectors • Other Safety Topics • Substance Abuse • Abuse • Dental care, fluoride 														
	Nutrition *														
		Education & Advice: ** Behaviour and Family Issues													
			Injury Prevention & Safety												
				Other											
					Specific Concerns										
						Examination	Blood Pressure***								
							Assessment Immunization Medications	Head & Neck Visual Acuity (L) (R) CVS Chest Back Abd GU Sexual Maturity Rating* Skin							
								Bold = Good evidence Italics = Fair evidence Plain = consensus		<small>Disclaimer: Given the evolving nature of evidence and changing recommendations, the Greig Health Record is meant to be used as a guide only</small>					
								<small>© A. Greig, 2010</small>		   					

Figure 1) Sample chart from the Greig Health Record. Available in English only

TEMPLATE LAYOUT

In the Greig Health Record, checklist templates are divided into three age ranges: six to nine years, 10 to 13 years and 14 to 17 years inclusive. Headings for sections include weight, height and body mass index; psychosocial history and development; nutrition; education and advice; specific concerns; examination; and assessment, immunization and medications (Figure 1). 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 (7).

A small area for family history was included on the top left-hand corner of the templates to assist in the identification of children at risk for conditions such as mood disorders, cardiovascular disease and diabetes (8,9). Other risk factors and allergies can also be recorded in this section.

Note that for the physical examination section, consensus opinion supports the inclusion of height, weight, blood pressure and visual acuity screening. Also included are headings for other examinations because these may be useful for case finding and should be used at the discretion of the clinician.

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 safety 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 height and weight measurements (10,11). The American Academy of Pediatrics (Bright Futures) and the American Medical Association recommend yearly preventive health visits, but other guidelines do not specify frequency because the recommendation is not evidence based (4,12,13). In healthy younger children, there is some evidence to suggest that reducing the number of health promotion visits does not result in adverse outcomes (14).

It is important to consider and counsel on special issues pertaining to the adolescent (15). It may be useful to review references for interviewing and examining adolescents (16-18). 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 (19). While there are variations among provinces, Canadian common-law minors can give informed consent to therapeutic medical treatment provided they understand and appreciate the proposed treatment, the attendant risks and possible consequences (16,20,21). 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 (19).

LEVELS OF EVIDENCE AND LIMITATIONS

Evidence-based information for children and adolescents aged six to 17 years is lacking, and there is little agreement among guidelines (22,12). Decisions for inclusion of elements were based primarily on consensus opinions and review of existing guidelines. Where possible, evidence-based information was used and levels of evidence were indicated.

The support for each element is noted in boldface type for good evidence (grade A), italics for fair evidence (grade B) and normal typeface for consensus recommendations (grade C) (23). 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 (24-26). There are few studies on the effectiveness of office-based counselling for individual elements.

There is good evidence for the use of bicycle helmets, seatbelts and booster seats, regular dental care and avoidance of second-hand smoke. There is good evidence to support immunizations as per current Public Health Agency of Canada's National Advisory Committee on Immunization guidelines. There is fair evidence for screening for major depressive disorder in adolescents, promotion of physical activity, avoidance of firearms in the home, safe sun practices and use of home smoke detectors. There is also fair evidence for blood pressure measurement screening. Of note,

there is evidence to support the exclusion of counselling for breast and testicular self-examinations as well as screening manoeuvres for scoliosis.

Growth charts and immunization record pages are not included in the Greig Health Record because they can be found with the Rourke Baby Record (1).

It is important to remember that the preventive health visit is not the only opportunity to address prevention. Not all elements in each section must be covered in each visit. It is expected that clinicians will use their discretion in selecting topics to discuss with each patient and the timing of the discussions.

The Greig Health Record is an evidence-based health supervision guide for clinicians caring for children and adolescents aged six 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 updates to the statement and tool are planned.

ENDORSEMENT: The College of Family Physicians of Canada endorses the Greig Health Record and its supporting literature.

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