Check ‘em Campaign for Teens

Awareness & Early Detection can mean the difference between Life & Death

The Canadian Testicular Cancer Association

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TESTICULAR CANCER

Testicular Cancer is the most common form of cancer in young men (aged 15-35), and accounts for 14% of all male cancers in this age group. While the incidence of most cancer for males in this age group is decreasing or plateauing, incidence of testicular cancer is on the rise in Canada, with an average 2.2% per year increase between 1983 and 1999. Between 1990 and 1999, there were 5,306 new cases of testicular cancer in Canada; an incidence rate of 9 per 100,000. In 2007 alone, Canada had 830 new cases of testicular cancer and 30 deaths. Of additional concern is that Ontario has seen a nearly 60% rise in the incidence of testicular cancer over the last 30 years, with the most notable increase among teens and young adult men. As can be seen in Figure 1, incidence rates rise steeply from age 10, peak in the mid to late 20s, then decline after age 30. In any situation, cancer is a challenging diagnosis. When focused on our younger population however, the impact of cancer is amplified.

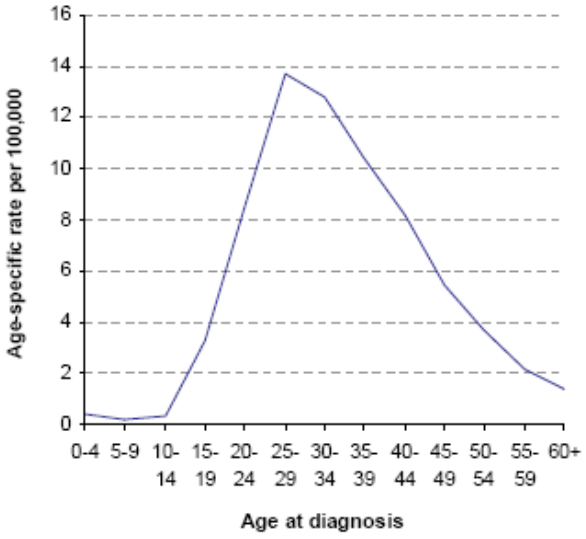

Figure 1: Age-specific rates of testicular cancer in Ontario, 2000-2004

WHAT IT IS

Occasionally, for reasons that still remain relatively unknown, some cells that make up the testes (Figure 2) can malfunction, leading to the uncontrolled growth of cells that serve no useful purpose in the body. This cell growth forms a neoplasm, also known as a tumor. While there are two different kinds of tumors, benign and malignant, it is the malignant form that is cancer. There are also different types of testicular cancer. About 95% of testicular tumors arise from the germ cell epithelium which line the testicular tubules, and are known as germ cell tumors. Another four percent are lymphomas, and one percent is the rarer histologies. Germ cell tumors fall into two categories: seminomas (40%, occur more often ages 30-50), and teratomas (60%, occur more often in ages 20-30).

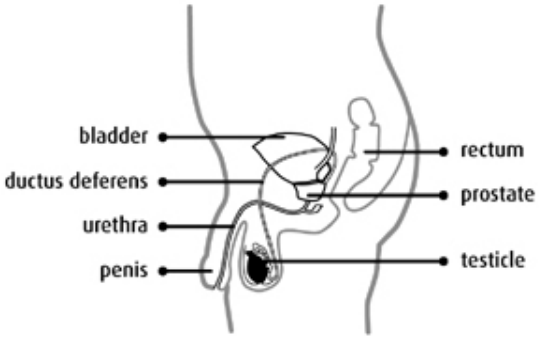

Figure 2: Male anatomy

CAUSES

Many factors have been hypothesized as being potential etiological forces for testicular cancer. The major recognized risk factors are chryptorchidism (having one or both testicles undescended – a 20 to 40-fold increased risk), and having a testicle descended after age six (an 80-fold increased risk). Other important risk factors include: having a father or brother who has had testicular cancer (a 6 to 10-fold increased risk), and having a history of contralateral testicular cancer (a 700 times greater risk).

SIGNS AND SYMPTOMS

A common early sign and symptom of testicular cancer is a hard, painless lump on the testicle, however this is not always present.

'Beyond the lump', as testicular cancer does not always show up as a noticeable lump, signs of testicular cancer include:

- change in the size, shape, tenderness or feel of the testicle
- swelling or pain in the testicle or scrotum
- a feeling of heaviness or dragging in the lower abdomen or scrotum
- a dull ache in the lower abdomen and groin
- unusual backache that doesn't go away
- unexplained weight loss
- breast tenderness or enlargement around the pectoral muscles

THE NEED FOR EDUCATION

The need for education about testicular cancer and its early detection is clear when one considers the statistics associated with survival rates for the varying stages of the disease, and the rapid rate at which these tumors typically grow. Treatment for testicular cancer is highly effective when detected before the tumor can metastasize. Five-year survival rates are more than 95% for Stage I and Stage II testicular cancer, but fall to 75% for Stage III testicular cancer, meaning that 25% of those diagnosed at Stage III typically die. As this disease primarily afflicts young men, each life lost represents a great number of potential years of life lost. Collectively, the mortality, potential years of life lost, and social impact of testicular cancer are important for health education because they all largely represent loss that could be avoided.

As mentioned, treatment for testicular cancer is more effective when detected early. However, several reasons have been noted as to why males may wait to seek medical attention when they first experience symptoms of the disease: lack of awareness/ knowledge regarding testicular cancer and its symptoms, misattribution of symptoms, procrastination, denial of

symptoms, the mildness of the early symptoms, fear about cancer, lack of perceived seriousness if no pain was present, the belief that a larger testicle makes a man more virile, and machismo.

Young men are not solely responsible for delayed detection and treatment; those in the medical profession may also lack awareness, and are often slow to suspect cancer in teens and young adults. For example, delayed treatment for testicular cancer has been attributed to physician inaction or misdiagnosis. In a study on cancer in young adults by Miedema and colleagues, it was found that family physicians frequently interpreted nonspecific symptoms as resulting from patients' lifestyle choices, and thus were reluctant to consider a diagnosis of cancer. As well, several family physicians reportedly believed that persistent symptoms could not be the result of cancer because patients were too young. Another article on cancer in teens by Morrison confirms that family physicians are often not suspicious enough of teenagers' symptoms, which can delay an accurate diagnosis.

Therefore, it is clear that education could contribute to increased awareness of testicular cancer, and thus, earlier treatment if a tumor is suspected. This in turn could help save lives of young men.

TESTICULAR SELF EXAM (TSE)

An effective technique for early detection of testicular cancer is testicular self-examination, or TSE. There are typically three steps involved in TSE:

1. After having a shower, stand in front of a mirror and examine the testicles, checking for any swelling or changes in the colour of the skin on the scrotum.
2. Use both hands to touch and feel each testicle, rolling each testicle between the thumb and forefinger. Become familiar with how the testicles feel. Your testicles should feel smooth. Look for any changes in the size or shape of each testicle (note: it is normal for one to be slightly larger than the other).
3. Feel for the epididymis (the soft cord at the back of each testicle that carries sperm). Check for anything unusual. There should be no lumps, bumps, swelling or pain when you check your testicles.

TSE is important not only because it enables early detection of testicular cancer, but also because it encourages young males to assume greater responsibility for the care of their bodies - which is rare. Considering the fact that men rarely make appointments to see their physicians for physical exams and that monthly palpation of the testes is recommended, TSE is an essential prevention technique.

CHECK 'EM TESTICULAR CANCER AWARENESS CAMPAIGN

The "Check 'Em" testicular cancer awareness campaign is based on the Theory of Reasoned Action and the related Theory of Planned Behaviour, as well as the Attitude-Social-Influence-Self-Efficacy Model. The framework[1] for the campaign is described below, of which any or all components are encouraged to be utilized by your health unit. The framework is followed by brief summaries of focus group and pilot test findings.

FRAMEWORK

Content:

It is recommended that the testicular cancer and TSE lesson plans include a brief review of:

1. What testicular cancer is
2. The 'known' causes of testicular cancer
3. The typical lack of awareness of testicular cancer
4. The reasons for educating about the disease (and the importance of early detection)

In addition, it is recommended that the lesson plans provide a more in depth review of:

5. The prevalence of testicular cancer
6. The symptoms of the disease
7. The rate of growth of testicular tumors and the need to seek immediate care if tumors are suspected or detected (including a listing of reasons why males typically wait to seek treatment – so as to nullify those reasons)
8. Survival rates and the curability of the disease if it is caught early (*not* including information about treatment – the thought of having an orchiectomy may be too frightening for adolescents, thus leading them to not conduct TSE or to conduct TSE and to deny true symptoms – information about treatment will be provided if it is requested, of course)
9. A review of the male genital anatomy
10. A description of how (in steps) and when (after a hot shower, once per month) to perform TSE
11. Demonstration of TSE on a testicular model
12. Asking students to decide on their implementation intentions (decide when and where they will perform TSE)
13. The sharing of a personal story from a former testicular cancer patient or family member of a testicular cancer patient (*optional*)
14. A question and answer period

[1] The framework has been modified to exclude direct references to the Waterloo Region, and thus make it applicable to health units across Ontario.

	15. The distribution of a pamphlet on both testicular cancer and TSE and a list of additional resources that students can access should they desire more information Also note that all pictures or diagrams used should: • Be realistic • Depict large groups of males as opposed to small groups Finally, the above lessons could also be accompanied by related posters displayed in each school.
Method:	This information should be delivered via a comprehensive, multiple format campaign including the following components: • A slide-show presentation combined with a talk by the presenter (for items 1-8) • A diagram (for item 9) • A video (for item 10) • A live demonstration using a testicular model by the presenter (for item 11) • A talk by the presenter (for item 12) • A talk by a former testicular cancer patient or mother (for item 13) • A discussion hosted by the presenter (for item 14) • Pamphlets distributed by the presenter (for item 15) These lessons could be presented at a school-wide assembly, or even better, at an assembly for each grade or class individually.
Delivery Agents:	There are many possible delivery agents that could be used to deliver the proposed lesson plans (e.g., trained adolescent peers, physical education teachers, teachers of any discipline, school or public health nurses, physicians, former testicular cancer patients). As most Ontario high school students attend school on average five days per week, it would make sense to use the school as a means to reach the largest proportion of students possible. One individual who has access to all students within each high school is often the school nurse (typically via visits to individual classes and school-wide assemblies). It is for this reason, in addition to the fact that these individuals are already well trained in the health education of youth, that it is recommended that school nurses be the primary presenters of this material. In addition to school nurses, however, as can be seen above, it is also recommended that a talk be given by a former testicular cancer patient or family member. In recognition of the fact that it may be difficult to find someone to fulfill this role, this recommendation is certainly optional.
Audience:	It is recommended that the audience for this message is all high school students (grades 9 through 12). As the highest risk group for testicular cancer includes those aged 15-35, targeting high school aged adolescents

	will allow the information to reach adolescents before or during a time when they fall into this category. As adolescence is a time during which life-long health patterns can be established, it is important to educate about how to perform TSE so as to increase the likelihood of this practice becoming a ritualistic part of these individuals' lives. Further, as it is often the partners of males who first recognize the symptoms of testicular cancer, it is recommended that these lessons be given to both males and females.
Time:	It is estimated that the lesson plans will take approximately 45 minutes to administer.
Evaluation:	**Phase 1:** It is suggested that an evaluation is administered immediately before the lesson plans are used, measuring knowledge of testicular cancer (what it is, its symptoms, its prevalence, the age group it primarily afflicts, the curability of it, their anxiety about it, and past trips to physicians regarding concerns of it), knowledge of TSE (what it is, how – in steps, when, and how often to perform it), current practice of TSE (and if not practicing it, then reasons why), and intentions to perform TSE in the future. **Phase 2:** Directly following the lesson, it is suggested that the same questionnaire as above be administered, but that new questions be added with respect to the lesson itself (its value, what they liked most and least about it, whether the material was appropriate, whether the length of time it took was appropriate, whether the methods used to convey the messages were appropriate, whether there was anything they thought was missing, whether there was anything they thought was unnecessary, etc.). If posters were put up in the schools as well, then similar evaluative questions could be asked in reference to those (whether they noticed and/ or read them, how valuable they were in providing information, what they liked most and least about them, whether the material was clear and appropriate, whether the method used to convey the message was appropriate, whether there was anything they thought was missing, whether there was anything they thought was unnecessary, whether the format/text/colours were effective, whether they were posted in appropriate places, etc.). **Phase 3:** If time and funding permits, subsequent evaluations could be given so as to determine the long-term impact of the lesson plans with respect to both knowledge and behaviour. The same questions posed in Phase 1 could be asked, in addition to questions regarding: whether or not the participants had performed TSE since the lessons had been presented, and whether the participants had sought out other resources for additional information.

FOCUS GROUPS

Between late July and early November of 2006, five focus groups were held with teen boys in Waterloo Region high schools. These sessions were the third stage in the multi-phase development process of the "Check 'Em" testicular cancer school-based awareness campaign.

The first stage of development included an extensive literature review on testicular cancer and social marketing with teenage boys. Completed in August of 2006, this review informed the development of the second stage, a proposed framework for the campaign, which served as the basis for the focus group questions. The framework is described in the previous section.

The focus groups asked groups of boys questions about their existing knowledge of testicular cancer and TSE, as well as about specific campaign pieces, such as the posters, the images, the brochures, and the presentation. Analysis of the findings indicates the following:

- Presence of a knowledge deficit
- Desire for detailed, action-oriented information
- Desire for direct, humourous, age-appropriate campaign elements
- Preference for connected campaign elements
- Support for co-ed participation in campaign
- Preference for external leadership of the presentation

Based on these findings, it was determined that the overall focus should be to develop a school-based campaign that provides clear, direct and accurate information on testicular cancer and TSE to teenage boys. Multiple versions of a poster, brochure, and handout cards were developed. These were designed to be graphically simple with a white background, bold text, and minimal images, as well as to focus on key messages. Humour was emphasized with the "Check 'Em" slogan accompanied by an image of nuts. An accompanying PowerPoint presentation was also developed (duration is approximately 10 minutes) to emphasize information included in the brochure.

PILOT STUDY EVALUATION RESULTS

Following input from the focus groups and development of campaign materials, the "Check 'Em" campaign was pilot tested in February and March 2007 at two Waterloo Region high schools. After these two initial pilot tests, some changes were made to the poster and presentation, in terms of colour, graphics and wording.

Following approval of campaign materials by Region of Waterloo Public Health, another pilot test was conducted in October 2007, with pre- and post-test evaluation components. The pilot was administered to an audience of grade 11 co-ed students, and all campaign elements were included, with greatest emphasis on the presentation, conducted in the form of a 50 minute

assembly. The presentation was comprised of an introduction by a school ambassador (student), followed by a 15 minute presentation by a local mother on her experience in losing a son to testicular cancer, concluding with a 15 minute presentation on testicular cancer and TSE by a Public Health Nurse. As the students left the assembly, student ambassadors passed out a handout brochure to students, detailing the signs and symptoms of testicular cancer, the steps in performing TSE, and links to additional resources. The pre- and post-surveys of knowledge were administered to grade 11 students two weeks prior to the presentation and 2 weeks after. A set of questions on each of the surveys were asked only of the boys. The post-survey only included a section evaluating the campaign.

The "Check 'Em" testicular cancer awareness campaign pilot had a measurable impact on students' knowledge about testicular cancer and TSE. Respondents demonstrated dramatic increases in knowledge after the campaign and assembly as compared to before. Boys also demonstrated a change in behavioural intention with respect to TSE. Aside from the knowledge increase resulting from pre-test to post-test, respondents indicated themselves that they learned a lot from the campaign. The evaluation results illustrate that the campaign is an effective way to increase awareness and knowledge of testicular cancer and TSE and should be considered as a tool to achieve those objectives in secondary school environments.

The campaign was also well received by students. Future campaigns should keep the following recommendations in mind:

- Have a similar presentation by a Public Health Nurse.
- Have a similar presentation by a mother affected by testicular cancer.
- Include similar posters as part of the campaign.
- Postcard handouts should be distributed such that all students receive them (i.e. as a classroom take home or handout). This avoids situations in which students feel embarrassed taking them when others are not; girls should also be given the handout.
- If brochures are available, their location should be clearly illustrated as part of the campaign or during the assembly.
- Both guys and girls should attend the assembly.
- Both guys and girls should learn about testicular cancer and TSE.
- As Public Health Clinics, School Nurses, the internet, and parents or guardians were high on the list of sources students would go to for information, ensure the campaign and assembly provide information on the location of clinics, a reminder of the school nurse as a resource, internet links for information, and a handout with information and resources sent home to parents.

CHECK 'EM AND YOUR HEALTH UNIT

As this package has illustrated, testicular cancer is a serious disease, affecting and killing young men across our country. The good news is that the loss of life from testicular cancer can be greatly minimized with increased awareness about the signs and symptoms and methods for early detection, thus improving chances of survival.

We encourage you to consider implementing the "Check 'Em" campaign in your city, region, district, or county. The framework provided here outlines the possible components of the campaign; any or all can be utilized. For example, you may wish to conduct a program similar to the one being implemented in the Waterloo Region, or you may use any of our resources in developing your own program, large or small. There are also vast amounts of campaign materials and resources available to you, such as pamphlets, posters, t-shirts, presentations, guest speakers, and a specially developed TSE silicone training kit, which has been left with high schools in our region for use in school curriculum. The "Check 'Em" campaign would be a simple and cost-effective program for your health unit to implement.

Please contact us if you would like to be a part of this exciting initiative, and we will provide you with the information or materials you wish to receive.

ACKNOWLEDGEMENTS

Many thanks go to Region of Waterloo Public Health for their work in the development of this campaign, and their co-operation throughout this initiative.

This package was researched and prepared by Claudia G. Brown, BSc, MPH Candidate, in June 2008.

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