

volumes. These techniques are often validated statistically using analyses intended for one-dimensional not 2D or 3D data. We highlight drawbacks of this approach and propose an alternative. We measured intracranial (ICV), cerebrospinal fluid (CSF) and white matter lesion (WML) volumes on structural MR brain images of individuals from the Lothian Birth Cohort 1936 ([www.disconnectmind.ed.ac.uk](http://www.disconnectmind.ed.ac.uk)) with a reference standard (RS) and two automated methods (M1 and M2). We used 18 subjects representing a range of CSF and WML volumes. We compared agreement with Bland-Altman<sup>1</sup> and similarity using the Jaccard Index.<sup>2</sup> The Bland-Altman method suggested different agreement between the automated measures and RS than was apparent on visual inspection of the segmented volumes or the similarity index. For example, the difference between the ICV RS and M1 was larger (1.44%) than between RS and M2 (0.71%), but the similarity indices were 0.96 and 0.97 respectively. For CSF, the M2 volume had sixfold worse agreement with RS than M1 (mean difference M2=131.2 cm<sup>3</sup> vs M1=20 cm<sup>3</sup>) but the mean similarity index was 0.54 for both methods. Apparently good agreement for WML volumes mirrored a high similarity index, but it was not always an indicator of good segmentation assessed visually. The validation of tissue/lesion segmentation methods on medical images for epidemiological studies should include spatial information by plotting similarity indices across the sample.

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## P1-59 TOPICS RELATED TO SKIN CANCER WHICH AROUSE GREATER DEMAND FOR INFORMATION DURING NATIONAL CAMPAIGNS IN BRAZIL

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**Introduction** Institutional campaigns of prevention of skin cancer, strongly emphasise the importance of individual responsibility in the protection against excessive sun exposure and early identification of pre cancerous lesions. Despite the large investment of public resources, there are few studies that identify the topics most sought during the campaigns—which may indicate a collective motivation to change behaviour. The analysis of log files of qualified websites has become recently a simple way to estimate the collective demand for health information on internet.

**Methods** The Brazilian National Cancer Institute (INCA) website was selected by its popularity and volume of qualified information. We studied 4800 pages over 4 years (January 2006 to December 2009) by means of log analyser software. We estimated the access to skin cancer pages during November (month of two national campaigns concerning cancer prevention).

**Results** The pages about melanoma (epidemiology, diagnosis and treatment) consistently attracted the highest number of hits during the entire period (annual mean of 3200; 6127; 8785; and 10864 hits from 2006 to 2009, respectively). The highest peaks of interest were observed in November (during campaigns) with monthly mean of 5366; 8593; 11 977; and 13 496 hits. In contrast, the self skin exam—most accessed topic on prevention—had a much smaller number of hits: 1710; 2640; 3722; and 3197.

**Conclusions** Institutional campaigns can motivate the search for information about skin cancer, although this search has little focus on issues related to prevention or early detection.

## P1-60 EUROPEAN GUIDELINES FOR COLORECTAL CANCER SCREENING—INITIAL STANDARDS

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**Introduction** Colorectal cancer (CRC) is the 4th most common cause of cancer death worldwide. The efficacy of screening in reducing CRC mortality has been proven in RCTs. The EU recommends population-based screening with appropriate quality at each step in the screening process. Evidence-based, multidisciplinary European Guidelines for Quality Assurance in Colorectal Cancer Screening and Diagnosis have been developed by experts and will be published shortly by the European Commission. The EU Guidelines include a summary table of performance standards in CRC screening.

**Methods** A multidisciplinary, pan-European group of experts in implementation, evaluation and quality assurance of colorectal cancer screening led by an editorial board drafted and revised the guidelines outline and key clinical questions covering the entire screening process. An expert literature group provided additional scientific support in defining the questions, conducting the respective literature reviews and evaluating the evidence. The bibliographic searches (Medline, Embase, Cochrane Library) covered the years 2000–2008. In selected cases, references not identified by the above process were included in the evidence base, for example, relevant articles published after 2008 identified by the authors.

**Results** For 13 parameters sufficient evidence was found from published trials and the experience in implementation of population-based screening programmes to achieve consensus on recommended targets across the EU.

**Conclusions** Initial performance standards have been developed which are suitable for a pan-European setting. Programmes should monitor numerous additional parameters to maintain and continuously improve quality. All standards should be constantly reviewed and revised accordingly with regard to results achieved and best clinical practice.

## P1-61 CAN ROUTINE HOSPITAL ACTIVITY DATA BE UTILISED TO PROVIDE RELIABLE INFORMATION ABOUT HOSPITAL INCIDENCE OF CASES OF SEVERE SEPSIS?

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**Introduction** “Severe sepsis”, defined as sepsis plus organ failure, is a heterogeneous and complex condition which occurs across all specialities, causes significant morbidity and mortality (case fatality rate about 30%), and consumes substantial healthcare resources. Yet the diagnostic coding schemes commonly in use do not have a code for this prognostically-important diagnosis, and epidemiological data are hence scarce. Our study aimed to develop an algorithm to ascertain cases of severe sepsis from routine hospital data.

**Method** The algorithm was developed iteratively, utilising Scottish hospital activity data (n=133 597 selected admissions ie, having an infection code and/or hospital death), secondary analysis of national prospectively-collected critical care research data (n=2687) and