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# GASTROINTESTINAL NEWS

Newsletter di aggiornamento sui tumori gastrointestinali



*GASTROINTESTINAL NEWS nel 2007 si presenta rinnovato sia nella veste che nel contenuto. Nato per iniziativa del comitato scientifico e coordinato da Intermedia, mantiene la pubblicazione quindicinale e continua ad occuparsi di cancro gastrointestinale. Le news non verranno più tradotte in italiano, ma pubblicate in lingua inglese e, una volta al mese, verrà proposto un commento su un particolare articolo, preparato da un componente del comitato scientifico.*

## NEWS DALLA RICERCA

**Tumour markers in colorectal cancer: European Group on Tumour Markers (EGTM) guidelines for clinical use** - European Journal of Cancer 2007; Volume 43, Issue 10, July: Pages 1348-1360 (abstract)

**Colonoscopy surveillance in asymptomatic subjects with increased risk for colorectal cancer: clinical evaluation and cost analysis of an Italian experience** - European Journal of Cancer Prevention 2007; Volume 16, Number 4, August: Pages 292-297 (abstract)

**Pesticide use and colorectal cancer risk in the agricultural health study** - International Journal of Cancer 2007; Volume 121, Issue 2, 15 July: Pages 339 - 346 (abstract)

**Role of S128R polymorphism of E-selectin in colon metastasis formation** - International Journal of Cancer 2007; Volume 121, Issue 3, 1 August: Pages 528 - 535 (abstract)

## APPUNTAMENTI

**XV Conferenza Nazionale AIOM** (info)

**I Tumori Neuroendocrini del Pancreas** (info)

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## NEWS DALLA RICERCA

### Tumour markers in colorectal cancer: European Group on Tumour Markers (EGTM) guidelines for clinical use

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**European Journal of Cancer 2007; Volume 43, Issue 10, July: Pages 1348 – 1360**

*Abstract* The aim of this article is to present updated guidelines for the use of serum, tissue and faecal markers in colorectal cancer (CRC). Lack of specificity and sensitivity preclude the use of all existing serum markers for the early detection of CRC. For patients with stage II or stage III CRC who may be candidates for either liver resection or systemic treatment should recurrence develop, CEA should be measured every 2–3 months for at least 3 years after diagnosis. Insufficient evidence exists to recommend routine use of tissue factors such as thymidylate synthase, microsatellite instability (MSI), *p*53, K-*ras* and deleted in colon cancer (DCC) for either determining prognosis or predicting response to therapy in patients with CRC. Microsatellite instability, however, may be used as a pre-screen for patients with suspected hereditary non-polyposis colorectal cancer. Faecal occult blood testing but not faecal DNA markers may be used to screen asymptomatic subjects 50 years or older for early CRC.

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## Colonoscopy surveillance in asymptomatic subjects with increased risk for colorectal cancer: clinical evaluation and cost analysis of an Italian experience

Matarese, Vincenzo Giancarlo; Feo, Carlo V.; Pezzoli, Alessandro; Trevisani, Lucio; Brancaleoni, Massimiliano; Gullini, Sergio

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**European Journal of Cancer Prevention 2007; Volume 16, Number 4, August: Pages 292 – 297**

*Abstract*: The aim of this study was three-fold: (a) to present a surveillance plan for colorectal cancer prevention with colonoscopy, focused on first-degree relatives of colorectal cancer patients in the province of Ferrara (Italy); (b) to analyse the cost of colonoscopy at the University Hospital of Ferrara; and (c) to analyse the cost of the surveillance plan in our province. In January 2000, in the province of Ferrara, following a campaign of public sensitization, a plan of surveillance with colonoscopy was started, addressing the population at an increased risk for colorectal cancer (i.e. over 45-year-old first-degree relatives of patients with either colorectal cancer or adenomatous polyps revealed before 60 years of age). In addition, we estimated the cost of colonoscopy both at the University Hospital of Ferrara and of the surveillance plan. Between January 2000 and October 2003, 585 individuals at increased risk were interviewed. Five hundred and forty-four (94%) accepted to undergo a colonoscopy. By October 2003, 439 (81%) colonoscopies had been performed. Colonoscopy was normal in 330 individuals (75%). In 109 individuals (25%), 144 lesions were found: 35 patients (32%) had hyperplastic polyps, 66 (61%) had adenomas, and eight (7%) adenocarcinomas (six Dukes A, one Dukes B, and one Dukes C stage). Out of a total of 101 adenomas, 68 were tubular adenomas (67%), 24 tubulo-villous adenomas (24%), and nine adenomas with high-grade dysplasia (9%). The cost of colonoscopy at our hospital and the costs of the surveillance plan amounted to Euro 130.84 (Euro 169.57 with single biopsy) and Euro 43,103.66 (Euro 42 310.34/year), respectively. These data show (a) the efficacy of colonoscopy in the early diagnosis of colorectal cancer and premalignant lesions in first-degree relatives of colorectal cancer patients; (b) the low cost of colonoscopy at the centre performing the surveillance; and (c) the feasibility of screening and surveillance programmes for colorectal cancer prevention.

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## Pesticide use and colorectal cancer risk in the agricultural health study

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**International Journal of Cancer 2007; Volume 121, Issue 2, 15 July: Pages 339 – 346**

*Abstract* We investigated the relationship between agricultural pesticides and colorectal cancer incidence in the Agricultural Health Study. A total of 56,813 pesticide applicators with no prior history of colorectal cancer were included in this analysis. Detailed pesticide exposure and other information were obtained from self-administered questionnaires completed at the time of enrollment (1993-1997). Cancer incidence was determined through population-based cancer registries from enrollment through December 31, 2002. A total of 305 incident colorectal cancers (212 colon, 93 rectum) were diagnosed during the study period, 1993-2002. Although most of the 50 pesticides studied were not associated with colorectal cancer risk, chlorpyrifos use showed significant exposure response trend ($p$ for trend = 0.008) for rectal cancer, rising to a 2.7-fold (95% confidence interval: 1.2-6.4) increased risk in the highest exposure category. Aldicarb was associated with a significantly increased risk of colon cancer ($p$ for trend = 0.001), based on a small number of exposed cases, with the highest exposure category resulting in a 4.1-fold increased risk (95% confidence interval: 1.3-12.8). In contrast, dichlorophenoxyacetic acid showed a significant inverse association with colon cancer but the association was not monotonic. Our findings should be interpreted cautiously since the literature suggesting that pesticides are related to colorectal cancer is limited. Nonetheless the possibility of an association between exposure to certain pesticides and incidence of colorectal cancer among pesticide applicators deserves further evaluation.

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## Role of S128R polymorphism of E-selectin in colon metastasis formation

Riccardo Alessandro[1], Gregorio Seidita[1], Anna Maria Flugy[1], Francesca Damiani[1], Antonio Russo[2], Chiara Corrado[1], Paolo Colomba[1], Lucia Gullotti[1,3], Reinhard Buettner[3], Loredana Bruno[2], Giacomo De Leo[1]

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**International Journal of Cancer 2007; Volume 121, Issue 3, 1 August: Pages 528 - 535**

*Abstract* The extravasation of cancer cells is a key step of the metastatic cascade. Polymorphisms in genes encoding adhesion molecules can facilitate metastasis by increasing the strength of interaction between tumor and endothelial cells as well as impacting other properties of cancer cells. We investigated the Ser128Arg (a561c at the nucleotide level) polymorphism in the E-selectin gene in patients with metastatic colon cancer and its functional significance. Genotyping for a561c polymorphism was performed on 172 cancer patients and on an age-matched control population. The colon cancer group was divided into groups with ($M^+$) and without observable metastasis ($M^-$). For *in vitro* functional assays, Huvec transfected cells expressing wild-type (WT) or the S128R variant of E-selectin were established to study *in vitro* binding ability and signal transduction processes of T84 colon cancer cell line. Our results demonstrated that the $Arginine^{128}$ allele was more prevalent in the $M^+$ group than in the $M^-$ group or normal controls ($p < 0.005$; odds ratio, 1.56; 95% confidence interval (CI) 1.16-1.92; $p < 0.001$, odds ratio = 1.65; CI = 1.24-1.99, respectively). *In vitro*, S128R E-selectin transfected Huvec cells, supported increased adhesion as well as increased cellular signaling of T84 cancer cells compared to WT E-selectin and mock-transfected Huvec cells. These findings suggest that the E-selectin S128R polymorphism can functionally affect tumor-endothelial interactions as well as motility and signaling properties of neoplastic cells that may modulate the metastatic phenotype.

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# APPUNTAMENTI

**XV Conferenza Nazionale AIOM**
*Le neoplasie del tratto gastro-enterico superiore*
Bari, 6-8 settembre 2007
Hotel Sheraton Nicolaus
Per scaricare il programma collegati al sito: www.medinews.it *(Società Scientifiche - Aiom - Appuntamenti)*

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**I Tumori Neuroendocrini del Pancreas**
Padova, 17 settembre 2007
Aula Ramazzini, Policlinico
Università di Padova, Via Giustiniani 2
Per scaricare il programma collegati al sito: www.medinews.it *(Società Scientifiche - Aiom - Appuntamenti)*

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