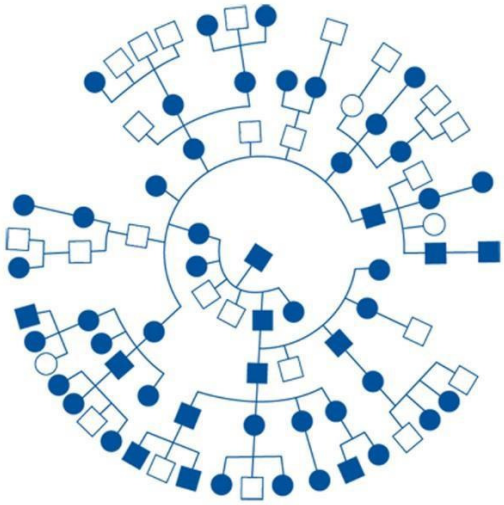
Annual Report

2022

The Netherlands Foundation for the Detection of Hereditary Tumors

Stichting Opsporing Erfelijke Tumoren (StOET)



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MISSION

The mission of the Foundation for the Detection of Hereditary Tumors (hereinafter referred to as StOET) is to prevent unnecessary death by early detection of hereditary tumors. To achieve this, the national registry offers its support in the management of patients genetically predisposed to the development of cancer. The registry helps to identify all persons within an affected family and to provide information regarding their greatly increased risk of cancer and the importance of preventive surveillance examinations. It also monitors the quality of care and adherence to the necessary lifelong surveillance. In addition, the Foundation is a port of call for patients and families. The registry promotes scientific research with the joint aims of improving screening programs and increasing our understanding of hereditary tumors. All activities described in this annual report were designed to help accomplish the above mission.

1. GENERAL ISSUES

Monique van Leerdam as the Medical Director

In January 2019, Monique van Leerdam MD, PhD, and gastroenterologist, has become medical director of the StOET. She has a long record of excellent research in Lynch syndrome and polyposis syndromes. Prof. Dr. van Leerdam is a senior staff member of the Department of GI-Oncology at the National Cancer Institute (Antoni van Leeuwenhoek) in Amsterdam. In addition to her appointment as Medical Director of the registry, she is the head of the Family Cancer Clinic at the University Medical Center in Leiden.

Protection of privacy in accordance with new European legislation: AVG

The Registry keeps a record of medical data relating to patients and risk-bearing family members. The processing of such data has been subject to the General Data Protection Regulation (AVG) since May 25, 2018. The AVG sets out the conditions under which personal and medical data can be processed and also defines the rights of subjects involved. In agreement with the AVG, the StOET will only initiate registration once the person concerned has given written permission. In 2018 the Supervisory Committee for the Protection of Privacy was abolished and instead a privacy officer was appointed at the StOET, with a mandate to ensure that the rules on privacy are adhered to. Since December 2020 the StOET has a new privacy officer, Marie-José Bonthuis, with experience in other large database consortia. If a person registered with the StOET wishes to exercise his or her rights in accordance with the AVG, this can be done by sending a message to the following email address: privacy@stoet.nl.

Secure communication solutions

E-mail is an indispensable part of communication for the StOET and the specialists (and in some cases with patients). In 2019 ZorgMail Secure e-mail has been implemented which means that the StOET can receive and send e-mails with privacy-sensitive information in a the most secure environment possible.

European Hereditary Tumour Group (EHTG) Guideline

In 2021 an EHTG guideline on the management of Peutz-Jeghers Syndrome was published. Anja Wagner, board member of the StOET, was head of the guideline committee and Monique van Leerdam was one of the pan-European experts involved in the development of this guideline.

Modular update of the Hereditary Ovarian Carcinoma Guideline

In 2022 the modular update of the Hereditary Ovarian Carcinoma Guideline was completed. This guideline was modularly revised. The new modules are:

- Referral criteria for DNA testing after the diagnosis of ovarian carcinoma
- Expansion of diagnostics with the module 'genes at mild and moderate risk of ovarian carcinoma'
- Histological subtyping for DNA testing at diagnosis of ovarian carcinoma

European Society for Gastrointestinal Endoscopy (ESGE) Guidelines

In 2019 the European Society for Gastrointestinal Endoscopy (ESGE) initiated two new guidelines regarding endoscopic surveillance of hereditary gastrointestinal tumors. The medical director of the StOET, Monique van Leerdam, was head of both guidelines. A pan-European group of experts performed the literature search, made a summary of the literature and wrote the guidelines.

1. Endoscopic Management of Lynch syndrome and familial risk of colorectal cancer: European Society of Gastrointestinal Endoscopy (ESGE) guideline.
2. Endoscopic management of polyposis syndromes: European Society of Gastrointestinal Endoscopy (ESGE) Guideline.

InSIGHT (InSiGHT (insight-group.org)

In September 2022 the InSIGHT meeting was held in New York, United States. This meeting was attenuated by the MD. At this meeting new insights in the field of hereditary gastrointestinal cancer syndromes was shared within a network of specialists working in different fields, all of whom were involved in the prevention, diagnosis and treatment of hereditary GI tumor syndromes.

2. REGISTRATION

2.1 Registration of new family members

The number of subjects referred for registration is increasing yearly. Table 1 shows the current numbers of registered individuals, listed according to hereditary cancer syndrome.

Table 1. Number of individuals registered at the StOET on January 1st, 2022

Syndrome	Number of individuals registered 01-01-2022	Number of individuals registered 01-01-2022 but deceased
Lynch syndrome/ Familial Colorectal cancer	3870	554
Familial Adenomatous Polyposis/ poliposis	3100	468
Familial Atypical Multiple Mole Melanoma	4671	981
Familial prostate cancer	1299	527
Peutz-Jeghers syndrome	50	12

2.2. Reminder system

The StOET has a reminder system with the aim of guaranteeing the progress of lifelong screening. In practice this entails the sending of a message from the StOET to the treating specialist in which it is made clear that a certain patient is (again) eligible for screening examinations.

The specialist then sends the result of the examination to the registry (or a copy of the letter to the general practitioner) and informs the StOET regarding scheduling of the next screening round.
In 2022 all specialists caring for persons registered at the StOET were informed in this way. If it emerged that a particular individual had withdrawn from screening, action was taken. First the patient received a reminder to attend the examination from the specialist. In case of no response, the general practitioner was then asked to remind the patient of the importance of periodic examinations. This approach helps prevent the loss of patients from screening who might later present with complaints that in many cases are due to a carcinoma.

2.3 Information about the different hereditary syndromes.
All information about the different hereditary syndromes has been updated on the website (www.stoet.nl) over the last years and in 2022. This information is meant both for treating physicians as well as for patients. Updated information about familial prostate cancer will follow in 2023.

3. EVALUATION OF SURVEILLANCE

As stated in our mission, the registry promotes scientific research with the aim of improving surveillance programs. Currently several programs are being evaluated. Below a number of studies is listed related to surveillance conducted or published in 2022.

4. NATIONAL GUIDELINES

In 2022 StOET and the working group clinical oncogenetics (WKO) from the Society for Clinical Genetics Netherlands (VKGN) have published the first digital version of the 'Erfelijke en familiaire tumoren; richtlijnen voor diagnostiek en preventie'. This modular version with a summary of all Dutch guidelines and recommendations for hereditary syndromes will be updated as soon as new publications are available, hereby delivering the most up to date information to care providers (Richtlijnen boekje Stichting opsporing erfelijke tumoren (stoet.nl)).

5. EDUCATION, PUBLICATIONS AND PATIENT INFORMATION

After a period of complete lock down due to the COVID10 pandemic, which caused many cancellations of presentations and patient information days were cancelled, the presentation for the Lynch Polyposis Patient association was held in November 2022 in Utrecht, and joined by approx. 100 persons. The StOET has attended this event in order to emphasize the importance of being registered at the StOET.

The StOET also joined the kick-off of a new national initiative: the Nederlands Kanker Collectief (Dutch Cancer Collective).

Several articles about hereditary cancer syndromes have been published in the Lynch Polyposis information magazine for patients, www.lynch-polyposis.nl/contact_bladen_lpp.

In addition, many articles were published with the aim of increasing knowledge regarding hereditary cancer for professionals (see below).

The leaflets produced by the StOET on various hereditary forms of cancer were updated where necessary. The StOET website is updated regularly by Evelyn Groeneveld.

In March 2022 a specific college for second years students about hereditary GI cancers was given by prof. van Leerdam at the Leiden University Medical Center.
In November 2022 , prof Van Leerdam has given her public lecture at the Leiden University (https://www.youtube.com/watch?v=X9pIFGeyzBo).

6 . OTHER STUDIES/ PUBLICATIONS

European Hereditary Tumour Group (EHTG) guideline.

Wagner A, Aretz S, Auranen A, Bruno MJ, Cavestro GM, Crosbie EJ, Goverde A, Jelsig AM, Latchford A, Leerdam MEV, Lepisto A, Puzzono M, Winship I, Zuber V, Möslein G.The Management of Peutz-Jeghers Syndrome: The Management of Peutz-Jeghers Syndrome: European Hereditary Tumour Group (EHTG) Guideline.
J Clin Med. 2021 Jan 27;10(3):473

Hereditary pancreatic cancer.

Klatte DCF, Wallace MB, Löhr M, Bruno MJ, van Leerdam ME. Best Pract Res Clin Gastroenterol. 2022;58-59:101783. doi: 10.1016/ Review.

European Society of Gastrointestinal Endoscopy (ESGE) guideline.

van Leerdam ME, Roos VH, van Hooft JE, Dekker E, Jover R, Kaminski MF, Latchford A, Neumann H, Pellisé M, Saurin JC, Tanis PJ, Wagner A, Balaguer F, Ricciardiello L. Endoscopic management of polyposis syndromes: European Society of Gastrointestinal Endoscopy (ESGE) Guideline.
Endoscopy. 2019;51:877-895.

van Leerdam ME, Roos VH, van Hooft JE, Balaguer F, Dekker E, Kaminski MF, Latchford A, Neumann H, Ricciardiello L, Rupińska M, Saurin JC, Tanis PJ, Wagner A, Jover R, Pellisé M. Endoscopic management of Lynch syndrome and of familial risk of colorectal cancer: European Society of Gastrointestinal Endoscopy (ESGE) Guideline.
Endoscopy. 2019;51:1082-1093.

The present and future of gastroenterology and hepatology: an international SWOT analysis (the GASTROSWOT project).

de-Madaria E, Mira JJ, Carrillo I, Afif W, Ang D, Antelo M, Bollipo S, Castells A, Chahal P, Heinrich H, Law JK, van Leerdam ME, Lens S, Pannala R, Park SH, Rabiee A, Savarino EV, Singh VK, Vargo J, Charabaty A, Drenth JPH.Lancet Gastroenterol Hepatol. 2022:485-494. doi: 10.1016/ Review.

Systematic review: non-endoscopic surveillance for colorectal neoplasia in individuals with Lynch syndrome.

van Liere ELSA, de Boer NKH, Dekker E, van Leerdam ME, de Meij TGJ, Ramsoekh D.Aliment Pharmacol Ther. 2022):778-788. doi: 10.1111.

100 years Peutz-Jeghers syndrome.

de Jong MA, van Leerdam ME, Offerhaus GJAJ, Keller JJ.Ned Tijdschr Geneeskd. 2022;166:D6507.

APC mosaicism, not always isolated: two first-degree relatives with apparently distinct APC mosaicism.
Terlouw D, Hes FJ, Suerink M, Boot A, Langers AMJ, Tops CM, van Leerdam ME, van Asperen CJ, Rozen SG, Bijlsma EK, van Wezel T, Morreau H, Nielsen M.Gut. 2022:gutjnl-2022-328540. doi: 10.1136

Somatic hits in mismatch repair genes in colorectal cancer among non-seminoma testicular cancer survivors.
Ykema BLM, Breekveldt ECH, Carvalho B, van Wezel T, Meijer GA, Kerst M, Schaapveld M, van Leeuwen FE, Snaebjornsson P, van Leerdam ME.Br J Cancer;127(11):1991-1996. doi: 10.1038

Longitudinal changes of serum protein N-Glycan levels for earlier detection of pancreatic cancer in high-risk individuals.
Levink IJM, Klatte DCF, Hanna-Sawires RG, Vreeker GCM, Ibrahim IS, van der Burgt YEM, Overbeek KA, Koopmann BDM, Cahen DL, Fuhler GM, Wuhrer M, Bonsing BA, Tollenaar RAEM, Vleggaar FP, Vasen HFA, van Leerdam ME, Bruno MJ, Mesker WE.Pancreatology. 2022:497-506. doi: 10.1016

Pancreatic Cancer Surveillance in Carriers of a Germline CDKN2A Pathogenic Variant: Yield and Outcomes of a 20-Year Prospective Follow-Up.
Klatte DCF, Boekestijn B, Wasser MNJM, Feshtali Shahbazi S, Ibrahim IS, Mieog JSD, Luelmo SAC, Morreau H, Potjer TP, Inderson A, Boonstra JJ, Dekker FW, Vasen HFA, van Hooft JE, Bonsing BA, van Leerdam ME.J Clin Oncol. 2022;40(28):3267-3277. doi: 10.1200

Lack of association between CDKN2A germline mutations and survival in patients with melanoma: A retrospective cohort study.
Ipenburg NA, El Sharouni MA, van Doorn R, van Diest PJ, van Leerdam ME, van der Rhee JI, Goeman J, Kukutsch NA; Netherlands Foundation for Detection of Hereditary Tumors collaborative investigators.J Am Acad Dermatol. 2022:479-482. doi: 10.1016

Progress Report: New insights into the prevention of CRC by colonoscopic surveillance in Lynch syndrome.
Vasen HFA.Fam Cancer. 2022 Jan;21(1):49-56. Review.

High yield of surveillance in patients diagnosed with constitutional mismatch repair deficiency.
Ghorbanoghli Z, van Kouwen M, Versluys B, Bonnet D, Devalck C, Tinat J, Januszkiewicz-Lewandowska D, Costas CC, Cottereau E, Hardwick JCH, Wimmer K, Brugieres L, Colas C, Vasen HFA.J Med Genet. 2022:jmg-2022-108829. doi: 10.1136

7 . ORGANIZATION

7.1. Board

Dr. R. van Doorn (chairman), dermatologist, Leiden University Medical Center, Leiden
Dr. W.H. de Vos tot Nederveen Cappel, gastroenterologist, Isala Clinics, Zwolle
Prof. Dr. M.J.E. Mourits, gynaecologist, University Medical Centre Groningen, Groningen
Dr. A. Wagner, clinical geneticist, Erasmus Medical Centre, Rotterdam
Prof. Dr. P. Tanis, professor of colorectal surgery, Erasmus Medical Center, Rotterdam
Prof. Dr. J. Morreau, pathologist, Leiden University Medical Center, Leiden

7.2. Registry staff

Prof. Dr. M.E. van Leerdam, gastroenterologist, Medical Director
E.M. Groeneveld, management assistant
A.-M. van Veen, registration Familial Adenomatous Polyposis/ poliposis
I.S.J. van Leeuwen-Cornelisse, medical social worker
H.L. van Randeraad, registration Hereditary Melanoma and Hereditary Prostate cancer
L. van Leeuwen, registration Lynch syndrome
D. van Tol, registration Lynch syndrome

7.3. Data Privacy Officer

Mr. M.J. Bonthuis

7.4. Research Commission

Dr. P. van Duijvendijk, surgeon, Gelre Hospital, Apeldoorn
Prof. dr. E. Dekker, gastroenterologist, Amsterdam University Medical Centre, Amsterdam
Dr. A.M. Leliveld, oncological urologist, University Medical Centre Groningen, Groningen
Prof. Dr. M. Bekkenk, dermatologist, Amsterdam University Medical Centre, Amsterdam
S. ten Broeke, clinical geneticist in training, University Medical Centre Groningen, Groningen

ENCLOSURES

Presentations

1. Hereditary GI cancer syndromes; University college March 2022
2. InSIGHT meeting New York, USA, September 2022 and ASCO meeting September 2022; Pancreatic Cancer Surveillance in Carriers of a Germline CDKN2A Pathogenic Variant: Yield and Outcomes of a 20-Year Prospective Follow-Up.