

PI

Marco Del Chiaro, MD, PhD, FACS
Associate Professor of Surgery
Head of Pancreatic Surgery Unit
Division of Surgery, CLINTEC, Karolinska Institute, Stockholm, Sweden
marco.del.chiaro@ki.se

Collaborators

Marco Del Chiaro¹, Marc G. Besselink², Marco J. Bruno³, Djuna L. Cahen³, Thomas M. Gress⁴, Jeanin E. van Hooft⁵, Markus M. Lerch⁶, Julia Mayerle⁷, Lianne Scholten², Thilo Hackert⁸, Alessandro Zerbi⁹, David Cunningham¹⁰, Claudio Gi De Angelis¹¹, Enrique de-Madaria¹², Peter Hegyi¹³, Jonas Rosendahl¹⁴, Helmut Friess¹⁵, Riccardo Manfredi¹⁶, Philippe Lévy¹⁷, Francisco X. Real¹⁸, Alain Sauvanet¹⁹, Mohammed A. Hilal²⁰, Giovanni Marchegiani²¹, Irene Esposito²², Paula Ghaneh²³, Marc R.W. Engelbrecht²⁴, Paul Fockens⁵, Nadine C.M. van Huijgevoort⁵, Christopher Wolfgang²⁵, Claudio Bassi²⁶, Natalya B Gubergrits²⁷, Caroline Verbeke²⁸, Günter Klöppel²⁹, Aldo Scarpa³⁰, Giuseppe Zamboni³¹, Anne Marie O'Broin-Lennon³², Malin Sund³³, Nikolaos Kartalis³⁴, Lars Grenacher³⁵, Urban Arnelo¹, Kostantin V Kopchak³⁶, Kofi Oppong³⁷, Colin McKay³⁸, Truls Hauge³⁹, Kevin Conlon⁴⁰, Mustapha Adham⁴¹, Güralp O. Ceyhan⁴², Roberto Salvia⁴³, Christos Dervenis⁴⁴, Peter Allen⁴⁵, François Paye⁴⁶, Detlef K. Bartsch⁴⁷, Matthias Löhr¹, Massimiliano Mutignani⁴⁸, Johanna Laukkarinen⁴⁹, Richard Schulick⁵⁰, Roberto Valente⁵¹, Thomas Seufferlein⁵², Gabriele Capurso⁵³, Ajith Siriwardena⁵⁴, John P. Neoptolemos⁵⁵, Aldis Pukitis⁵⁶, Ralf Segersvärd¹

Author affiliations

¹ Pancreatic Surgery Unit, Division of Surgery, CLINTEC, Karolinska Institute at Center for Digestive Diseases, Karolinska University Hospital, Stockholm, Sweden

² Department of Surgery, Cancer Center Amsterdam, Academic Medical Center, Amsterdam, the Netherlands

³ Department of Gastroenterology and Hepatology, Erasmus University Medical Center, 's Rotterdam, the Netherlands.

⁴ Department of Gastroenterology, Philipps University of Marburg and Director of the Department of Gastroenterology, Endocrinology, Metabolism and Infectiology, University Hospital of Marburg, Marburg, Germany

⁵ Department of Gastroenterology, Amsterdam Gastroenterology and Metabolism, Academic Medical Center, Amsterdam, the Netherlands

⁶ Department of Medicine A, University Medicine Greifswald, Greifswald, Germany.

⁷ Department of Gastroenterology, Endocrinology and Nutrition, University Medicine Greifswald, Greifswald, Germany.

⁸ Department of Surgery, University of Heidelberg, Heidelberg, Germany.

⁹ Pancreatic Surgery, Humanitas University, Rozzano (MI), Italy.

¹⁰ Department of Internal Medicine, The Royal Marsden, London, UK

- ¹¹ Digestive Endoscopy Service, Gastroenterology Department, Città della Salute e della Scienza, Turin Hospital, Italy
- ¹² Gastroenterology Department, Alicante University General Hospital, Alicante Institute for Health and Biomedical Research (ISABIAL-FISABIO Foundation), Alicante, Spain
- ¹³ Momentum Translational Gastroenterology Research Group, Hungarian Academy of Sciences - University of Szeged, Szeged, Hungary and Institute for Translational Medicine and 1st Department of Medicine, University of Pécs, Pécs, Hungary
- ¹⁴ Department of Internal Medicine, Martin Luther University Halle-Wittenberg, 06120 Halle (Saale), Germany
- ¹⁵ Department of Surgery, Klinikum rechts der Isar, Technical University Munich, Ismaninger Strasse 22, D-81675 Munich Germany
- ¹⁶ Department of Radiology, University of Rome, Fondazione Policlinico Gemelli, 8 L.go A. Gemelli, 00168 Rome, Italy
- ¹⁷ Department of Pancreatology-Gastroenterology, University Denis Diderot, Hospital Beaujon, Clichy, France
- ¹⁸ Epithelial Carcinogenesis Group, Cancer Cell Biology Programme, Spanish National Cancer Research Centre-CNIO, Madrid, Spain; Departament de Ciències Experimentals i de la Salut, Universitat Pompeu Fabra, Barcelona, Spain
- ¹⁹ Department of HPB Surgery, Hopital Beaujon, AP-HP, 92110 Clichy, France
- ²⁰ Department of HPB Surgery, University Hospital Southampton NHS Foundation Trust, Southampton, England
- ²¹ Verona University Hospital, Department of Surgery, Pancreas Institute, Verona, Italy
- ²² Institute of Pathology, Heinrich Heine University, Duesseldorf, Germany
- ²³ Department of Molecular and Clinical Cancer Medicine University of Liverpool, Liverpool, England
- ²⁴ Department of Radiology, Academic Medical Center Amsterdam, Amsterdam, the Netherlands
- ²⁵ Department of Surgery, Johns Hopkins Hospital, Baltimore, Maryland, USA
- ²⁶ Surgical and Gastroenterological Department, Hospital G.B. Rossi, University of Verona, Italy.
- ²⁷ Department of Internal Medicine, Donetsk National Medical University, Donetsk, Ukraine
- ²⁸ Department of Pathology, Institute of Clinical Medicine, University of Oslo, Oslo, Norway.
- ²⁹ Department of Pathology, University of Kiel, Michaelisstr. 11, D-24005 Kiel, Germany.
- ³⁰ Department of Pathology, University and Hospital Trust of Verona, Verona, Italy
- ³¹ Department of Pathology, University and Hospital Trust of Verona, Verona, Italy
- ³² Department of Gastroenterology, Johns Hopkins Hospital, Baltimore, Maryland, USA
- ³³ Department of Surgical and Perioperative Sciences, University of Umeå, Umeå, Sweden.
- ³⁴ Division of Medical Imaging and Technology, Department of Clinical Science, Intervention and Technology (CLINTEC), Karolinska Institutet and Department of Radiology, Karolinska University Hospital, Stockholm, Sweden.
- ³⁵ Department of Radiology, University of Heidelberg, Heidelberg, Germany.

- ³⁶ Department of surgery, National Cancer Institute, Kiev, Ukraine
- ³⁷ Department of Gastroenterology, The Newcastle upon Tyne Hospitals, Newcastle, UK
- ³⁸ Department of Surgery, Glasgow Royal Infirmary, Glasgow, Scotland, UK.
- ³⁹ Department of Gastroenterology, Oslo University Hospital, Oslo, Norway
- ⁴⁰ Department of Surgery, Trinity College Dublin, Tallaght Hospital, Dublin, Ireland
- ⁴¹ Department of Surgery, Center Hospital University Lyon, Lyon, France
- ⁴² Department of Surgery, Klinikum Rechts der Isar, Technische Universität München, Munich, Germany
- ⁴³ Department of General and Pancreatic Surgery - The Pancreas Institute, University of Verona Hospital Trust, Verona, Italy.
- ⁴⁴ Department of Surgery, Konstantopouleion General Hospital of Athens, Greece.
- ⁴⁵ Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York, USA.
- ⁴⁶ Department of Digestive Surgery, AP-HP Hôpital Saint Antoine, Paris, France.
- ⁴⁷ Department of Visceral-, Thoracic- and Vascular Surgery, Philipps-University Marburg, Marburg, Munich, Germany.
- ⁴⁸ Department of Surgery, Catholic University, Rome, Italy
- ⁴⁹ Department of Gastroenterology and Alimentary Tract Surgery, Tampere University Hospital, Finland
- ⁵⁰ Department of Surgery, university of Colorado Hospital, Aurora, USA
- ⁵¹ Center for Digestive Diseases, Karolinska University Hospital, Stockholm, Sweden.
- ⁵² Department of Internal Medicine IV, Martin-Luther-University Halle-Wittenberg, Halle (Saale), Germany.
- ⁵³ Digestive and Liver Disease Unit, S. Andrea Hospital, Faculty of Medicine and Psychology, Sapienza University of Rome, Rome, Italy.
- ⁵⁴ Department of Surgery, Central Manchester University Hospitals, Manchester, UK
- ⁵⁵ General Surgery, University of Athens, Greece.
- ⁵⁶ Department of Internal Medicine, University of Latvia, Riga, Latvia

Contributors All authors established the main topics, and were involved in developing the recommendations. The listed collaborators provided feedback on the recommendations and survey and undertook data collection. MDC wrote the initial draft of the manuscript. All author revised the initial manuscript and approved the final version of the manuscript. The supporting evidence and drafted text have been made possible with the support of all review groups and expert committees, all of whom are listed below.

Other Collaborators (alphabetical order)), A. Aghdassi, S. Andrianello, P. Bossuyt, R. Bülow, K. Cárdenas-Jaén, P. Cortegoso, M. Fontana, L. Haeberle, M. Heckler, A. Litvin, K. Mann, C. Michalski, P. Michl, G. Nappo, G. Perri, S. Persson, F. Scheufele, F. Sclafani, M. Schmidt, L. Venezia, F. Volker, M.-P. Vullierm, L. Wüsten,

Committees

Writing committee

Chair: Marco Del Chiaro, (SWE)

Marc G. Besselink (NL)

Lianne Scholten (NL)

Caroline Verbeke (NOR)

Günter Klöppel (GER),

Anne Marie Lennon (USA),

Malin Sund (SWE),

Nikolaos Kartalis (SWE),

Lars Grenacher (GER),

Paul Fockens (NL),

Jeanin E. Van Hooft (NL)

Nadine C.M. van Huijgevoort (NL),

Christopher Wolfgang (USA),

Claudio Bassi (ITA),

Thilo Hackert (GER),

Marco J. Bruno (NL),

Thomas M Gress (GER),

Urban Arnelo, (SWE)

Alain Sauvanet (FR),

Richard Schulick (US),

Philippe Lévy (FRA),

John P. Neoptolemos (UK),

Helmut Friess (GER),

Djuna L Cahen (NL),

Thomas Seufferlein (GER)

Responsible for methodology

Chair: Marc G. Besselink (NL)

Marco Del Chiaro (SWE)

Marco Bruno (NL)

Philippe Lévy (FR)

Thomas M. Gress (GER)

Ralf Segersvärd (SWE)

Patrick Bossuyt (external support, NL)

Scientific Societies Representatives

Matthias Löhr (UEG)

Helmut Friess (EDS)

Christos Dervenis (EAHPBA)

Peter Hegyi (EPC)

Jeanin E. van Hooft (ESGE)

Time manager

Giovanni Marchegiani (ITA)

Manuscript review committee

Chair: Marco Del Chiaro (SWE)

Marc G. Besselink (NL)

Lianne Scholten (NL)

Marco J. Bruno (NL)

Thomas M. Gress (GER)

Julia Mayerle (GER)

Djuna L. Cahen (NL)

Jeanin E. van Hooft (NL)

Markus M. Lerch (GER)

Review groups:**1. CLASSIFICATION and PATHOLOGY ASSESSMENT and CYTOLOGY**

Group leader: Caroline Verbeke (NOR), Günter Klöppel (GER)

Group members: Irene Esposito (GER), Aldo Scarpa (ITA)

2. BIOMARKERS

Group leader: Anne Marie Lennon (USA), Malin Sund (SWE)

Group members: Peter Hegyi (HU), Francisco X. Real (SP),

3. RADIOLOGY

Group leader: Nikolaos Kartalis (SWE), Lars Grenacher (GER)

Group members:, Riccardo Manfredi (ITA), Marc R.W. Engelbrecht (NL)

4. ENDOSCOPY

Group leader: Paul Fockens (NL)

Group members: Urban Arnelo (SWE), Kofi Oppong (UK), Colin McKay (UK), Nadine C.M. van Huijgevoort (NL)

5. IPMN

Follow-up strategy leaders: Christopher Wolfgang (USA), Claudio Bassi (ITA)

Group members: Truls Hauge (NOR), Paula Ghaneh (UK), Kevin Conlon (IR), Mustapha Adham (FRA), Güralp O. Ceyhan (GER), Giovanni Marchegiani (ITA)

Surgical strategy leaders: Marco Del Chiaro (SWE), Thilo Hackert (GER)

Groups members: Max Schmidt (GER), Roberto Salvia (ITA), Enrique de-Madaria (SP), Mohammed Abu Hilal (UK), Christos Dervenis (GRE), Peter Allen (US)

Management of IPMN in high risk individuals leaders: Marco J. Bruno (NL), Thomas M. Gress (GER)

Groups members: François Paye (FRA), Detlef K. Bartsch, (GER), Matthias Löhr (SWE)

Ablative techniques in pancreatic IPMN leaders: Urban Arnelo (SWE)

Group members: Massimiliano Mutignani (ITA), Aldis Pukitis (LV),

6. MCN

Group leader: Alain Sauvanet (FR), Richard Schulick (US)

Group members: Johanna Laukkarinen (FIN), Alessandro Zerbi (ITA), Marc G. Besselink (NL)

7. SCN

Group leader: Philippe Lévy (FRA), John P. Neoptolemos (UK)

Group members: Kostantin V. Kopchak (UKR), Claudio Gi De Angelis (ITA), Ajith Siriwardena (UK).

8. OTHERS UNFREQUENT AND UNDEFINED CYSTIC TUMORS OF THE PANCREAS (I.E. SPN, NEUROENDOCRINE CYSTIC TUMORS)

Group leader: Helmut Friess (GER); Djuna L. Cahen (NL)

Group members: Gabriele Capurso (ITA), Natalya B. Gubergritis (UK), Jonas Rosendahl (GER), F. Volker (GER), Markus M. Lerch (GER)

9. ADJUVANCT AND NEO-ADJUVANT TREATMENT

Group leader: Thomas Seufferlein (GER)

Group members: David Cunningham (UK), Thomas M. Gress (GER)