

VIII EDIZIONE
NEN PRECEPTORSHIP
**LA PRATICA CLINICA NELLE
NEOPLASIE NEUROENDOCRINE**

16/17 Maggio 2019 | IEO, Istituto Europeo di Oncologia - Milano

Davide Ravizza
Istituto Europeo di Oncologia
Divisione di Endoscopia

NEN  **Preceptorship**

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JAMA Oncology | **Original Investigation**

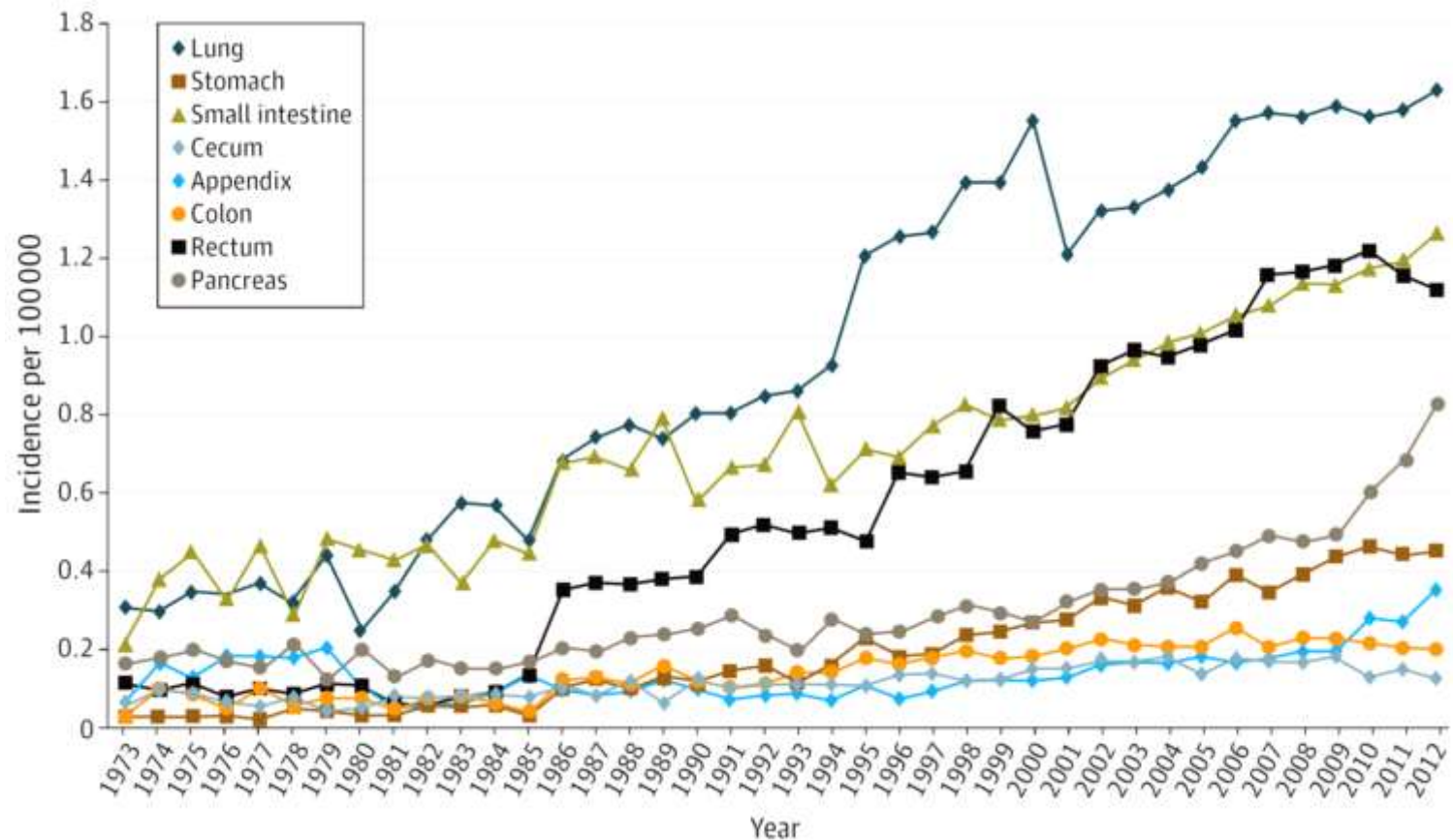
Trends in the Incidence, Prevalence, and Survival Outcomes in Patients With Neuroendocrine Tumors in the United States

Arvind Dasari, MD, MS; Chan Shen, PhD; Daniel Halperin, MD; Bo Zhao, MS; Shouhao Zhou, PhD; Ying Xu, MD;
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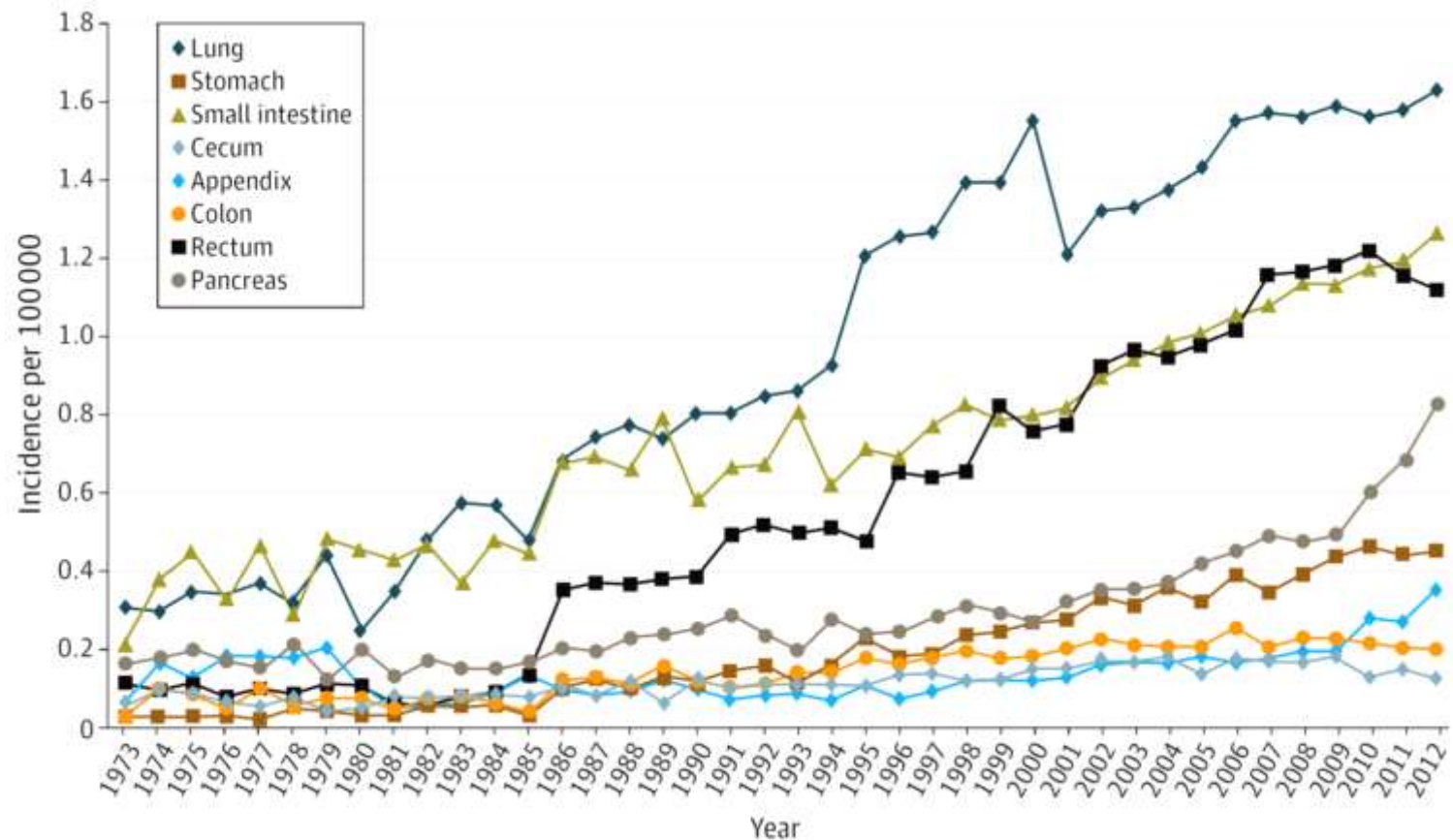


JAMA Oncol. 2017;3(10):1335-1342. doi:10.1001/jamaoncol.2017.0589
Published online April 27, 2017.

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Le diagnosi di pNENs sono in aumento per:

- Diffusione *imaging* radiologico ad alta definizione (*incidental finding*)
- Miglioramento della diagnostica cito-istologica
- Aumentata consapevolezza dell'esistenza dei pNENs

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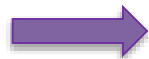
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incremento delle diagnosi di pNENs in stadio precoce



Linee guida

NEOPLASIE NEUROENDOCRINE

In condivisione con It.a.net
Italian Association for Neuroendocrine Tumours



Edizione 2018
Manuale integrale 2016 (update 2018)



5.2.1 Ecoendoscopia

L'ecoendoscopia (EUS) va oggi considerata la tecnica di scelta per la definizione diagnostica delle pNEN.

ENETS Consensus Guidelines

Neuro
endocrinology

Neuroendocrinology 2016;103:153–171
DOI: 10.1159/000443171

Published online: January 5, 2016

ENETS Consensus Guidelines Update for the Management of Patients with Functional Pancreatic Neuroendocrine Tumors and Non-Functional Pancreatic Neuroendocrine Tumors

M. Falconi^a B. Eriksson^b G. Kaltsas^c D.K. Bartsch^d J. Capdevila^e M. Caplin^f
B. Kos-Kudla^g D. Kwekkeboom^h G. Rindiⁱ G. Klöppel^j N. Reed^k R. Kianmanesh^l
R.T. Jensen^m all other Vienna Consensus Conference participants

^aDepartment of Surgery, San Raffaele Hospital, Università Vita e Salute, Milan, Italy; ^bDepartment of Endocrine Oncology, University Hospital, Uppsala, Sweden; ^cDepartment of Pathophysiology, Division of Endocrinology, National University of Athens, Athens, Greece; ^dDepartment of Surgery, Philipps University, Marburg, Germany; ^eInstitute of Oncology (VHIO), Vall d'Hebron University Hospital, Barcelona, Spain; ^fNeuroendocrine Tumour Unit, Royal Free Hospital, London, UK; ^gDepartment of Endocrinology, Medical University of Silesia, Katowice, Poland; ^hDepartment of Internal Medicine, Division of Nuclear Medicine, Erasmus Medical Center, Rotterdam, The Netherlands; ⁱInstitute of Anatomic Pathology, Policlinico A. Gemelli, Università Cattolica del Sacro Cuore, Rome, Italy; ^jInstitute of Pathology, Technische Universität München, Munich, Germany; ^kBeatson Oncology Centre, Gartnavel General Hospital, Glasgow, UK; ^lDepartment of Surgery, CHU Robert Debré, Reims, France; ^mDigestive Diseases Branch, NIH, Bethesda, Md., USA

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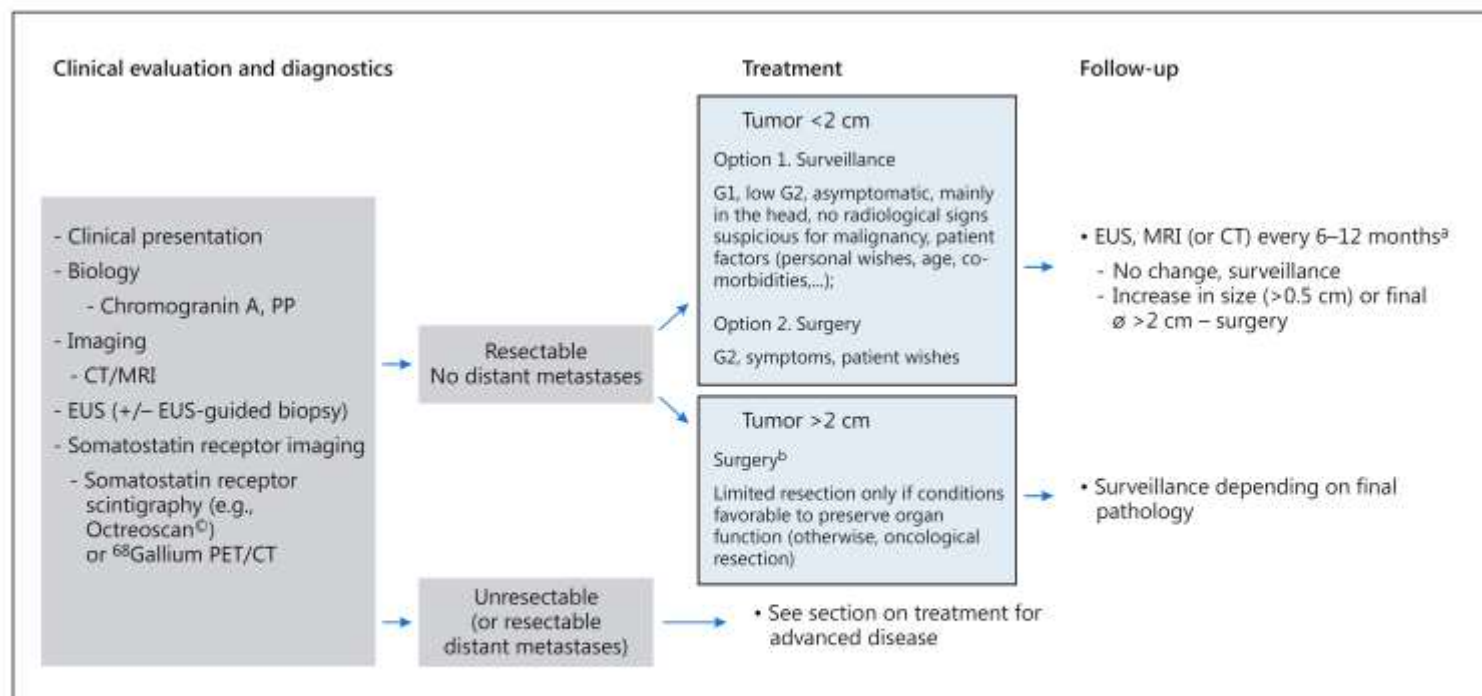


Fig. 3. Algorithm for treating NF-P-NETs. ^a If low Ki-67 value and stability after the initial 6 monthly evaluations. ^b Specific additional tests may be required to accurately stage the tumor (e.g. intraoperative US, intraoperative frozen section).

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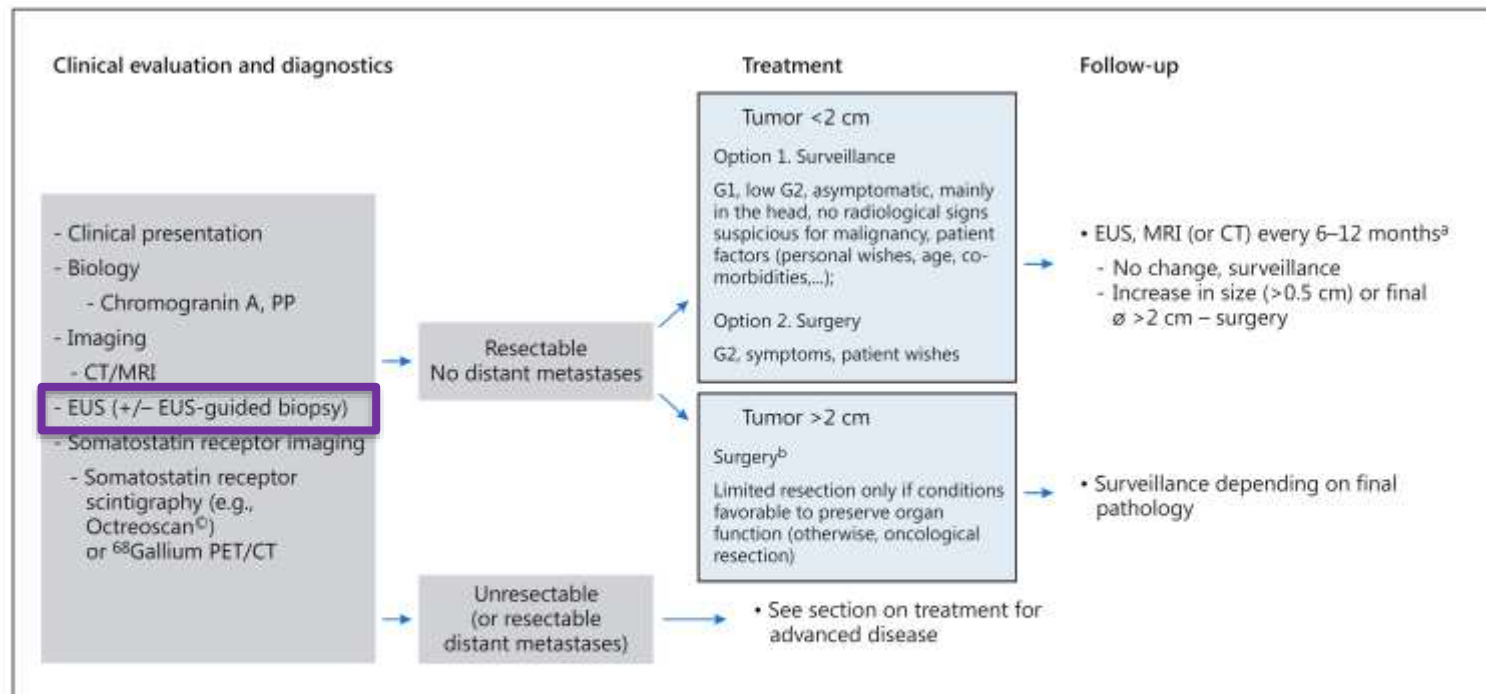


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Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Digestive and Liver Disease

journal homepage: www.elsevier.com/locate/dld



Review Article

Clinical impact of endoscopic ultrasonography on the management of neuroendocrine tumors: lights and shadows



Alessandra Zilli^{a,b}, Paolo Giorgio Arcidiacono^c, Dario Conte^a, Sara Massironi^{a,*}

^a Gastroenterology and Endoscopy Unit, Fondazione IRCCS Ca' Granda – Ospedale Maggiore Policlinico, Milan, Italy

^b Postgraduate School of Gastroenterology, Department of Pathophysiology and Transplantation, Università degli Studi di Milano, Milan, Italy

^c PancreatoBiliary Endoscopy and Endosonography Division, Pancreas Translational and Clinical Research Center, San Raffaele Scientific Institute, Vita Salute San Raffaele University, Milan, Italy

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Main indications and utility of EUS and EUS-FNA. This table summarizes the main indications of EUS for the different types of neuroendocrine neoplasms and the future fields of interest of this technique.

Type of NENs ^a	Indication to EUS ^b	EUS ^b not indicated	Utility of EUS-FNA ^c	Future fields of interest
Pancreatic NENs	To localize small pancreatic NENs, mainly insulinomas or gastrinoma, before surgery, especially if other non-invasive imaging studies are negative.			

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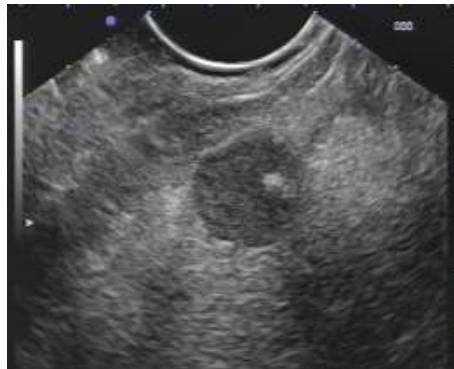
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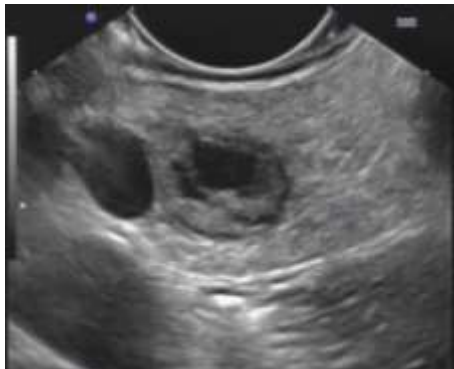
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Digestive Diseases

Pancreas: Original Paper

Dig Dis 2019;37:325–333
DOI: 10.1159/000499172

Received: February 7, 2019
Accepted: February 11, 2019
Published online: March 21, 2019

Pancreatic Neuroendocrine Tumours: The Role of Endoscopic Ultrasound Biopsy in Diagnosis and Grading Based on the WHO 2017 Classification

Milena Di Leo^{a,b} Laura Poliani^a Daoud Rahal^c Francesco Auriemma^a
Andrea Anderloni^a Cristina Ridolfi^d Paola Spaggiari^c Giovanni Capretti^d
Luca Di Tommaso^{b,c} Paoletta Preatoni^e Alessandro Zerbi^{b,d} Carlo Carnaghi^f
Andrea Lania^{b,g} Alberto Malesci^{b,e} Alessandro Repici^{a,b} Silvia Carrara^a

^aHumanitas Clinical and Research Center, IRCCS, Digestive Endoscopy Unit, Division of Gastroenterology, Milan, Italy; ^bHumanitas University, Department of Biomedical Sciences, Milan, Italy; ^cDepartment of Pathology, Humanitas Clinical and Research Center, IRCCS, Milan, Italy; ^dHumanitas Clinical and Research Center, IRCCS, Pancreatic Surgery Unit, Milan, Italy; ^eHumanitas Clinical and Research Center, IRCCS, Division of Gastroenterology, Milan, Italy; ^fHumanitas Clinical and Research Center, IRCCS, Division of Oncology, Milan, Italy; ^gHumanitas Clinical and Research Center, IRCCS, Division of Endocrinology, Milan, Italy

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64 pazienti sottoposti ad EUS/FNA per sospetto pNEN

5 esclusi: tumore solido pseudopapillare, cistoadenoma sieroso variante solida (2), metastasi da Ca rene (2)

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Diametro (mean) **mm 21** (SD 14.9)

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17 lesioni (28.8%) con **diametro inferiore a mm 10**

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58/59 (**98.3%**) EUS/FNA **diagnostica**

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58/59 (**98.3%**) EUS/FNA **diagnostica**, Ki 67 valutabile in 50 (**84.7%**)

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16/17 (**94.1%**) EUS/FNA **diagnostica**

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16/17 (**94.1%**) EUS/FNA **diagnostica**, **Ki 67** valutabile in 14 (**82.4%**)

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16/17 (94.1%) EUS/FNA diagnostica, Ki 67 valutabile in 14 (82.4%)

21/25 (84%) concordanza tra grading EUS/FNA e pezzo chirurgico

2 upgrading alla chirurgia (2 $\Rightarrow$ 5, 2 $\Rightarrow$ 30) e 2 downgrading (10 $\Rightarrow$ 2, 5 $\Rightarrow$ 2)

COMPLICAZIONI

Potenziati eventi avversi in corso di EUS-FNA di masse pancreatiche comprendono un rischio compreso tra **0.5%** e **2%** di **pancreatite** o **sanguinamento**.

Eloubeidi MA, ASGE Standards of Practice Committee, Gastrointest Endosc. 2016

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LIMITI

- Operatore dipendente
- Invasiva
- Necessita di sedazione

Eloubeidi MA, ASGE Standards of Practice Committee, Gastrointest Endosc. 2016

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NEN PRECEPTORSHIP
**LA PRATICA CLINICA NELLE
NEOPLASIE NEUROENDOCRINE**

16/17 Maggio 2019 | IEO, Istituto Europeo di Oncologia - Milano

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