

NBI International Colorectal Endoscopic (NICE)

Classification System



What is Narrow Band Imaging International Colorectal Endoscopy Classification System (NICE)

NBI International Colorectal Endoscopy (NICE)



A Brief History of Narrow Band Imaging (NBI)

- Olympus sponsored the formation of the Colon Tumor NBI Interest Group (CTNIG), an international group of expert physicians, to develop criteria from NBI observation for tissue assessment
- The NBI International Colorectal Endoscopic (NICE) classification system was created and published by CTNIG
- The intent behind NICE is to create a simple and easy to apply framework for colon polyp characterization by Western doctors
- NICE sets out a validated classification system to allow for consistent classification of colorectal polyps with standard non-magnifying endoscopes

A Brief History of Narrow Band Imaging

2009 – Olympus convenes the first Colon Tumor BNI Interest Group (CTNIG) meeting with international expert physicians to establish endoscopic assessment criteria for colon polyps.

2012 – Members of CTNIG publish their work on the creation and validation of the NBI International Colorectal Endoscopic (NICE) classification for differentiation of small and diminutive colorectal polyps. NICE classification is meant to enable assessment of colorectal polyps with standard non-magnifying endoscopes commonly used in Western countries.

NBI is not intended to replace histopathological sampling as a means of diagnosis.



How & Why is NICE Applied in the Clinical Setting

NBI International Colorectal Endoscopy (NICE)



NICE Applied in the Clinical Setting

1. During a typical screening colonoscopy, the colon is inspected with white light.
2. After a polyp is detected, NBI is activated by the endoscopist to enhance visualization of the capillary network and mucosal morphology.
3. Through close inspection and application of the NICE classification criteria an experienced endoscopist can make a prediction of the polyp's histology as either Type 1 (non-adenoma) or Type 2 (adenoma).
4. The enables endoscopists to have high confidence in suspected polyp histology before it goes to pathology.

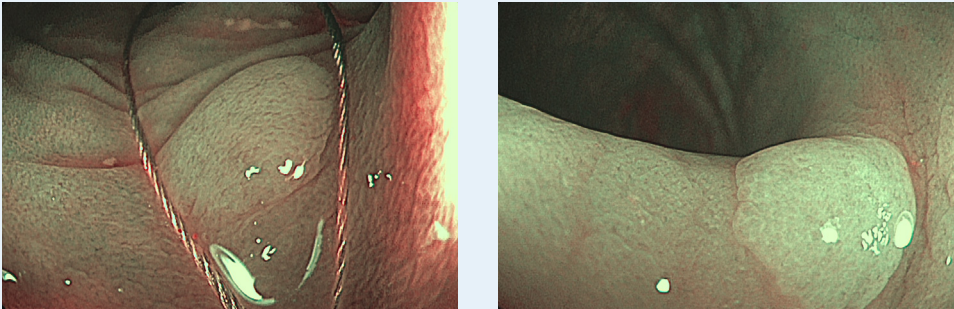
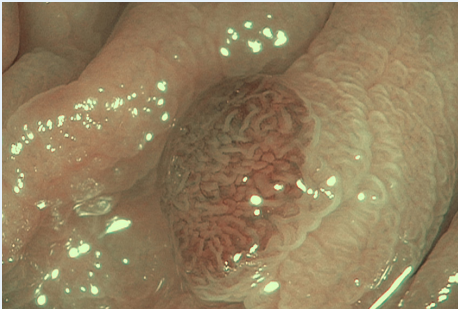
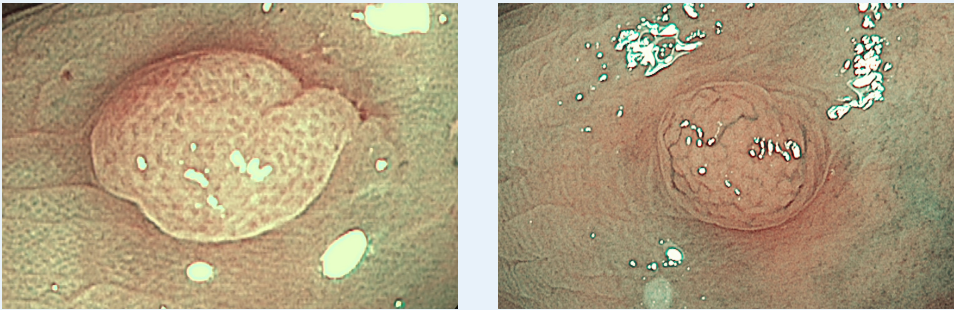
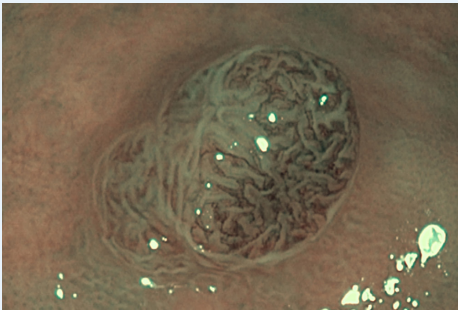
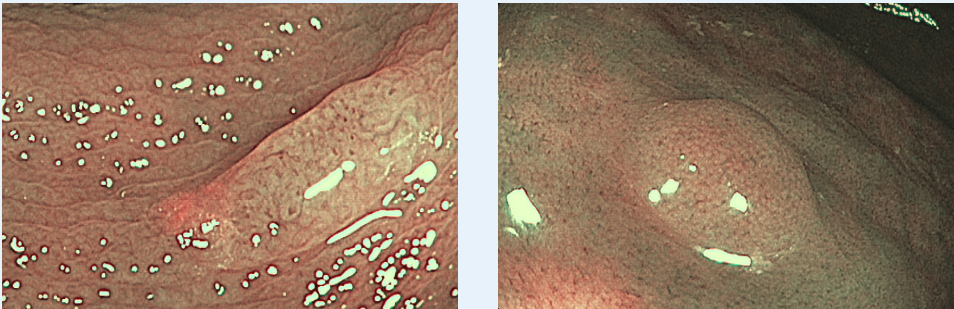
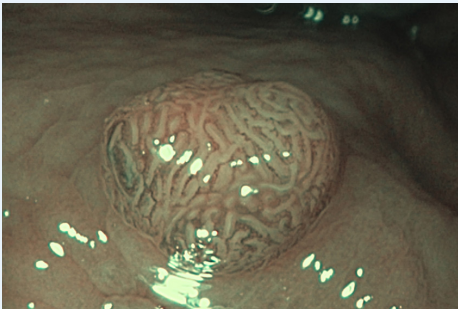
ASGE PIVI Thresholds

- The ASGE have shown that NBI meets the performance thresholds set out within their 2011 PIVI for this technology to be used to guide the decision to leave suspected rectosigmoid hyperplastic polyps 5 mm or smaller in place (without resection) and for colorectal polyps 5 mm or smaller to be resected and discarded without pathologic assessment.¹
- **ASGE encourages and supports the appropriate use of technologies that meet its established PIVI thresholds.²**

NBI is not intended to replace histopathological sampling as a means of diagnosis.

NICE Classification

NBI International Colorectal Endoscopy (NICE)

	Type 1	Type 2
Color	Same color or lighter in color than background 	Browner relative to background 
Vessels	None, or isolated lacy vessels coursing across the lesion 	Brown vessels surrounding white structures 
Surface Pattern	Dark or white spots of uniform size, or homogenous absence of pattern 	Oval, tubular or branched white structures surrounded by brown vessels 
Most Likely Pathology	Hyperplastic or Sessile Serrated Lesion (SSL)*	Adenoma



The NICE classification uses 3 criteria

- Color
- Vessels
- Surface Pattern

To classify small (<10mm) and diminutive (≤5mm) colorectal polyps into 2 categories

- **Type 1**
Hyperplastic or Sessile Serrated Polyp
- **Type 2**
Adenoma

Notes:

- NBI is not intended to replace pathology as a means of diagnosis.
- All Images were taken using NBI.
- Chart has been created for illustrative purposes only and all assessments were made by experts.

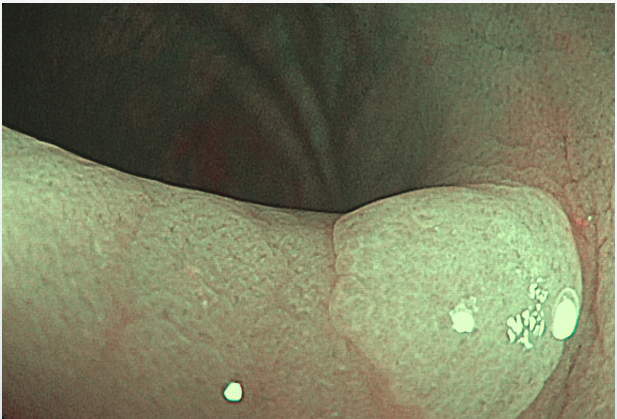
NICE Classification – Type 1

NBI International Colorectal Endoscopy (NICE)

Type 1	
Color	Same color or lighter in color than background
Vessels	None, or isolated lacy vessels coursing across the lesion
Surface Pattern	Dark or white spots of uniform size, or homogenous absence of pattern
Most Likely Pathology	Hyperplastic or Sessile Serrated Lesion (SSL)*



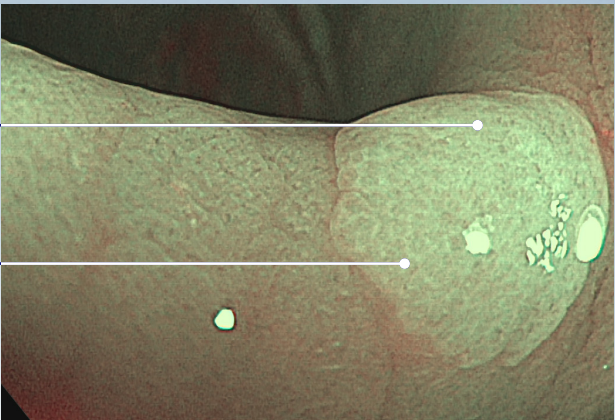
White Light



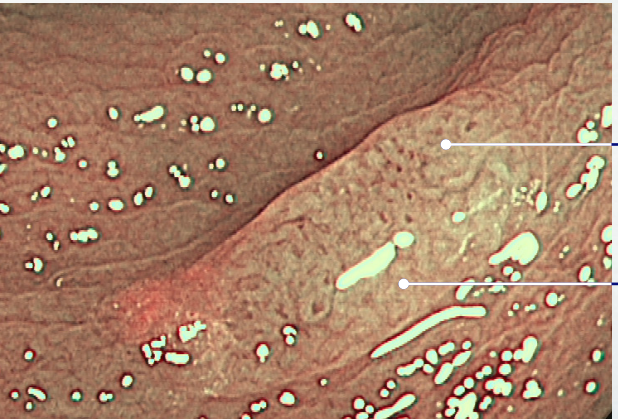
NBI

Lighter color than background

Absence of surface pattern



NBI



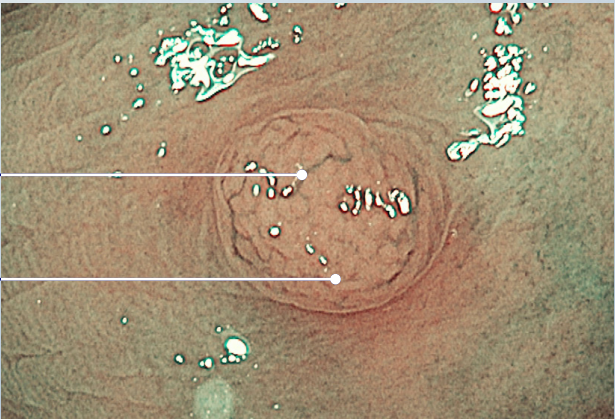
NBI

Surface pattern has dark spots of uniform size

Same color as background

Isolated Lacy vessels

Same color as background



NBI

Notes:

- NBI is not intended to replace pathology as a means of diagnosis.
- Images are for illustrative purposes only and all assessments were made by experts.

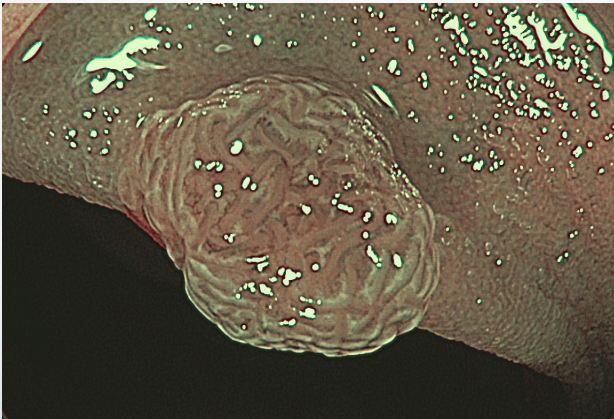
NICE Classification – Type 2

NBI International Colorectal Endoscopy (NICE)

Type 2	
Color	Browner relative to background
Vessels	Brown vessels surrounding white structures
Surface Pattern	Oval, tubular or branched white structures surrounded by brown vessels
Most Likely Pathology	Adenoma



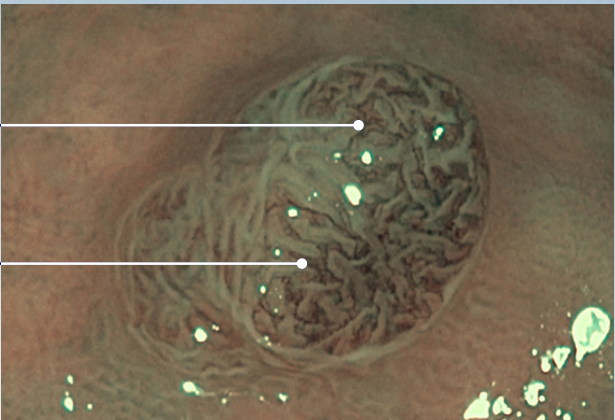
White Light



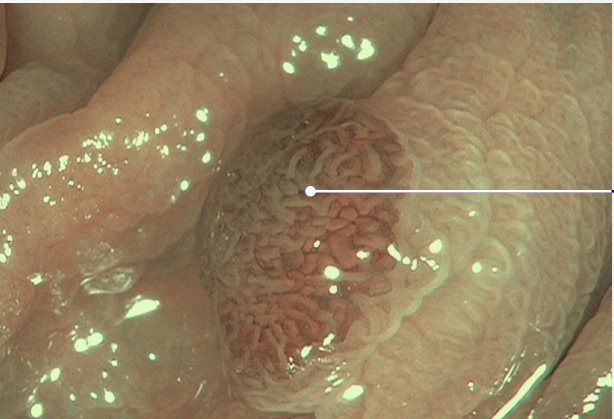
NBI

Brown vessels surrounding white structures

Browner relative to background



NBI

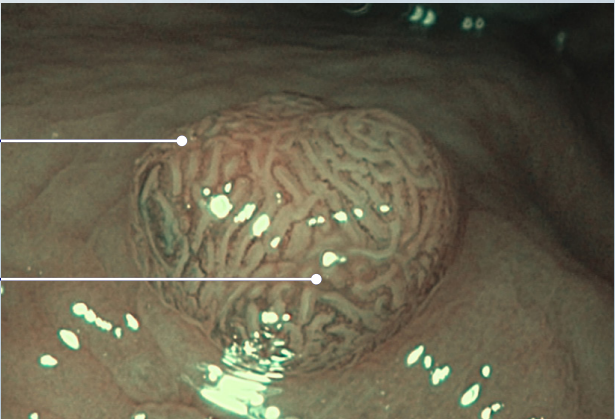


NBI

Browner relative to background

Browner relative to background

Tubular surface pattern



NBI

Notes:

- NBI is not intended to replace pathology as a means of diagnosis.
- Images are for illustrative purposes only and all assessments were made by experts.

References

1. Gastrointest Endosc 2015;81:502-16.
2. <https://www.asge.org/home/publications/pivis>

Specifications, design and accessories are subject to change without any notice or obligation on the part of the manufacturer.
Olympus is a registered trademark of Olympus Corporation, Olympus America Inc., and/or their affiliates. | Medical devices listed may not be available for sale in all countries.



OLYMPUS AMERICA INC.
3500 Corporate Parkway, PO BOX 610, Center Valley, PA 18034

For more information, contact your Olympus
sales representative, or call 800-848-9024.
www.medical.olympusamerica.com

©2021 Olympus America Inc. All rights reserved.
Printed in USA OAI0821BR042100