Grade 0: Majority of villi are >3 crypt lengths long
Grade 1: Villi are \( \leq 3 \) but \( > 1 \) crypt lengths long, in \( \leq 50\% \) of mucosa

Grade 2: Villi are \( \leq 3 \) but \( > 1 \) crypt lengths long, in \( > 50\% \) of mucosa
Grade 3: Villi absent, or < 1 crypt length long, in ≤ 50% of mucosa

Grade 4: Villi absent, or < 1 crypt length long, in > 50% of mucosa
GESTALT ARCHITECTURE
GRADE 0

Grade 0: Majority of villi appear normal (non-blunted)
GESTALT ARCHITECTURE
GRADES 1 & 2

Grade 1: Majority of villi show mild to moderate blunting
Grade 2: Majority of villi show moderate to severe blunting
Gestalt Architecture
Grade 3

Grade 3: Villus architecture is effaced (no villi observed)
Complete coverage of mucosa by epithelial cells.
EPITHELIAL DETACHMENT
GRADES 1-4

Surface epithelium missing or detached.

Grade 1: <25% of mucosa involved

Grade 2: 25-50% of mucosa involved

Grade 3: 51-75% of mucosa involved

Grade 4: >75% of mucosa involved
INTRAMUCOSAL BRUNNER GLANDS
GRADE 0

Brunner glands are in submucosa, but are not observed above the muscularis mucosae.
Grade 1: 1 or 2 foci of intramucosal Brunner glands, none involving more than 5 crypts

Grade 2: 3-5 foci of intramucosal Brunner glands, none involving more than 5 crypts
More than 5 foci of intramucosal Brunner glands, or any area involving more than 5 crypts
GOBLET CELL DENSITY
GRADE 0

Grade 0: Normal goblet cell density (at least 1 goblet cell per 20 enterocytes) in all evaluable mucosal epithelial layer
Grade 1: Decreased goblet cells (<1/20 enterocytes) in 1-25% of evaluable mucosal epithelium
Grade 2: Decreased goblet cells (<1/20 enterocytes) in 26-50% of evaluable mucosal epithelium
Grade 3: Decreased goblet cells (<1/20 enterocytes) in 51-75% of evaluable mucosal epithelium
Grade 4: Decreased goblet cells (<1/20 enterocytes) in 76-100% of evaluable mucosal epithelium
Only absorptive enterocytes and goblet cells observed on villi, no evidence of foveolar cells

FOVEOULAR CELL METAPLASIA
GRADE 0
FOVEOLAR CELL METAPLASIA
GRADES 1-3

Foveolar mucin cells observed, usually on the tips of the villi

Grade 1: 1-2 villus tips involved

Grade 2: 3-5 villus tips involved

Grade 3: >5 villus tips involved
ENTEROCYTE INJURY
GRADE 0

Grade 0: Majority of enterocytes (90%) show tall columnar morphology
Enterocytes show short columnar (<2:1 L:W ratio), cuboidal or flattened morphology.

Grade 1: ≤ 50% of epithelial area

Grade 2: > 50% of epithelial area
Any area of mucosal erosion or ulceration.

Note: presence of fibrino-inflammatory exudate and/or fibroblast proliferation help distinguish this injury from epithelial detachment artifact.
IEL ratio of lymphocytes to enterocytes does not exceed 1:5 (20%) in any area
INTRAEPITHELIAL LYMPHOCYTES
GRADES 1 & 2

Grade 1:
Lymphocyte/epithelial ratio >20%, but < 50%, in less than 50% of mucosa

Grade 2:
Lymphocyte/epithelial ratio >20%, but < 50%, in greater than 50% of mucosa
INTRAEPITHELIAL LYMPHOCYTES
GRADES 3 & 4

Grade 3:
Lymphocyte/epithelial ratio >50% in less than 50% of mucosa

Grade 4:
Lymphocyte/epithelial ratio ≥50% in greater than 50% of mucosa
No qualitative increase in mononuclear inflammatory cells (MIC) in lamina propria. Majority of villus bases contain <3 MIC across, on average.
CHRONIC INFLAMMATION OF LAMINA PROPRIA
GRADE 1

Increased MIC, based on villus base displaying 3-5 MIC across, on average.
Increased MIC, based on villus base displaying 6-10 MIC across, on average.
增加MIC，基于绒毛基部显示>10个MIC，平均数。

注：在总绒毛萎缩的情况下，测量在黏膜表面之间从皱襞开口处。
Grade 0: PMNs may be present in vessels or in lamina propria, but there is no intraepithelial infiltration (cryptitis, villitis)
ACUTE INFLAMMATION

**GRADERS 1-3**

Grade 1:
1-2 foci of epithelial PMN infiltration or crypt microabscesses

Grade 2:
>2 foci of epithelial PMN infiltration or crypt microabscesses but < 50% of mucosa involved

Grade 3:
>50% of mucosa involved by epithelial PMN infiltration
Grade 0:
No increase in eosinophils (highly scattered in lamina propria, no intravillus or intercryptal space with >5 eosinophils)
Grades 1 & 2

Grade 1:
Increased eosinophils (intravillus or intercryptal space with >5 eosinophils) involving ≤ 50% of mucosa, with no eosinophilic crypt microabcesses.

Grade 2:
Increased eosinophils (intravillus or intercryptal space with >5 eosinophils) involving > 50% of mucosa, or up to 1 focus of eosinophilic epithelial infiltration or crypt microabcesses per mucosal fragment.
Grade 3:
>2 foci of eosinophilic epithelial infiltration or crypt microabcesses in any mucosal fragment.
PANETH CELL DENSITY
GRADE 0

>5 Paneth cells/crypt base, on average

Note: only evaluate areas which crypt bases are well represented – avoid areas of complete transverse sectioning
PANETH CELL DENSITY
GRADE 1

2-4 Paneth cells/ crypt base, on average
PANETH CELL DENSITY
GRADES 2-3

< 2 Paneth cells/crypt base

Grade 2: seen in ≤50% of crypt bases

Grade 3: seen in >50% of crypt bases