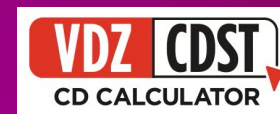


Enjoy_{the} Silence

**Vedolizumab Clinical
Decision Support Tool
(VDZ-CDST) in Crohn's
Disease (CD) for the
identification of patients
with potential probability
of responding to 26
weeks of Entyvio®
(vedolizumab) therapy¹**



Entyvio®
vedolizumab

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Entyvio is indicated for the treatment of adult patients with moderately to severely active ulcerative colitis (UC) or Crohn's disease (CD) who have had an inadequate response with, lost response to, or were intolerant to either conventional therapy or anti-tumour necrosis factor-alpha (TNF α) therapy. Entyvio is also indicated for the treatment of adult patients with moderately to severely active chronic pouchitis, who have undergone colectomy and ileal pouch anal anastomosis for UC and have had an inadequate response with or lost response to antibiotic therapy.²

1. Dulai PS, et al. *Gastroenterology* 2018;155:687–695; 2. Entyvio Summary of Product Characteristics. Available at: www.medicines.ie.

C-APROM/IE/ENTCD/0140 | April 2026



Clinical prediction models to assess treatment outcomes with advanced therapies in CD were limited

▷ As the **landscape of advanced therapy in CD evolves**, clinical prediction models are valuable to:



Estimate the magnitude of effect and influence of clinical factors on treatment outcomes, as these tend to vary across studies



Predict the value of the therapy for individual patients according to baseline characteristics



Facilitate precision medicine components such as decision-support tools

▷ **Two clinical models** have been developed for predicting **response to TNF- α agonists**; however, these were limited by inadequate precision

The VDZ-CDST CD aimed to address the need to create high-quality clinical decision models in CD

The VDZ-CDST in CD was developed based on clinical study (GEMINI 2) and real-life (VICTORY Consortium) data from patients with CD receiving Entyvio



Three individual prediction models were built based on the **GEMINI 2 trial** (n=814) and on three definitions of clinical remission (CREM).^{*} A set of variables were chosen based on **predictability** (in two out of three models), **literature review**, and **authors' opinion**

The three models were converged into a **final single prediction model**

The **VICTORY consortium data** (n=336)[†] were used to validate the CREM prediction model and its performance **in predicting mucosal healing and deep remission**

The final single prediction model was **transformed into VDZ-CDST**, with the GEMINI 2 cohort[‡] determining cut points for **low, intermediate, and high probability of response to Entyvio**

The **VDZ-CDST** was **validated** using data from the VICTORY consortium, calculating its **sensitivity, specificity, positive likelihood ratio, and negative likelihood ratio**

- **The primary goal was to develop and validate a prediction model for CREM^{*} with Entyvio in patients with active CD**

^{*}Three definitions of CREM were used: 1) CREM after 26 weeks of Entyvio therapy; 2) CSF-REM after 26 weeks for patients receiving CS at baseline; 3) sustained CREM through 52 weeks of Entyvio. [†]Patients were included if they had started Entyvio therapy for active CD, completed induction, had clinical/endoscopic assessment of disease activity after induction, and had a minimum follow-up of 26 weeks after Entyvio initiation.

[‡]Patients were included if they had received Entyvio induction therapy and did not receive PBO during maintenance therapy, irrespective of Week 6 response.

CD, Crohn's disease; CREM, clinical remission; CS, corticosteroid; CSF, corticosteroid free; PBO, placebo; VDZ-CDST, Vedolizumab Clinical Decision Support Tool.

Dulai PS, et al. *Gastroenterology* 2018;155:687–695.

The final single-model equation considers multiple clinical characteristics to predict clinical remission with Entyvio

Built from the three different prediction models, the final equation considers these clinical characteristics:



Prior exposure to TNF-α antagonist therapy (absence)



Prior bowel surgery (absence)



Prior fistulising disease (absence)



Baseline albumin



Baseline CRP*

Multivariable analyses for remission in the GEMINI 2 cohort for selected clinical characteristics

Independent predictor	OR	CI
Clinical remission		
No previous TNF-α antagonist	2.18	1.65–2.88
No previous bowel surgery	1.49	1.12–1.98
Baseline albumin	1.04	1.01–1.08
Baseline CRP	0.99	0.98–1.00
Corticosteroid-free remission		
No previous TNF-α antagonist	1.80	1.16–2.80
No history of fistulising disease	1.85	1.13–3.03
Baseline CRP	0.98	0.97–1.00
Sustained clinical remission		
No previous TNF-α antagonist	1.42	1.01–2.00
No history of fistulising disease	1.82	1.22–2.71
Baseline albumin	1.07	1.04–1.10

Adapted from Dulai PS, et al. 2018

*Baseline CRP was transformed into a categorical value.
CI, confidence interval; CRP, C-reactive protein; OR, odds ratio; TNF-α, tumour necrosis factor alpha.
Dulai PS, et al. *Gastroenterology* 2018;155:687–695.

Each variable was scored based on VICTORY Consortium data to predict CREM, CSF-REM, MH, and deep remission

No prior bowel surgery	No prior TNF-α antagonist	No prior fistulising disease	Baseline albumin	Baseline CRP
+ 2 points	+ 3 points	+ 2 points	+ 0.4 points per unit (g/L)	−0.5 points if 3.0–10.0 mg/L −3.0 points if >10 mg/L

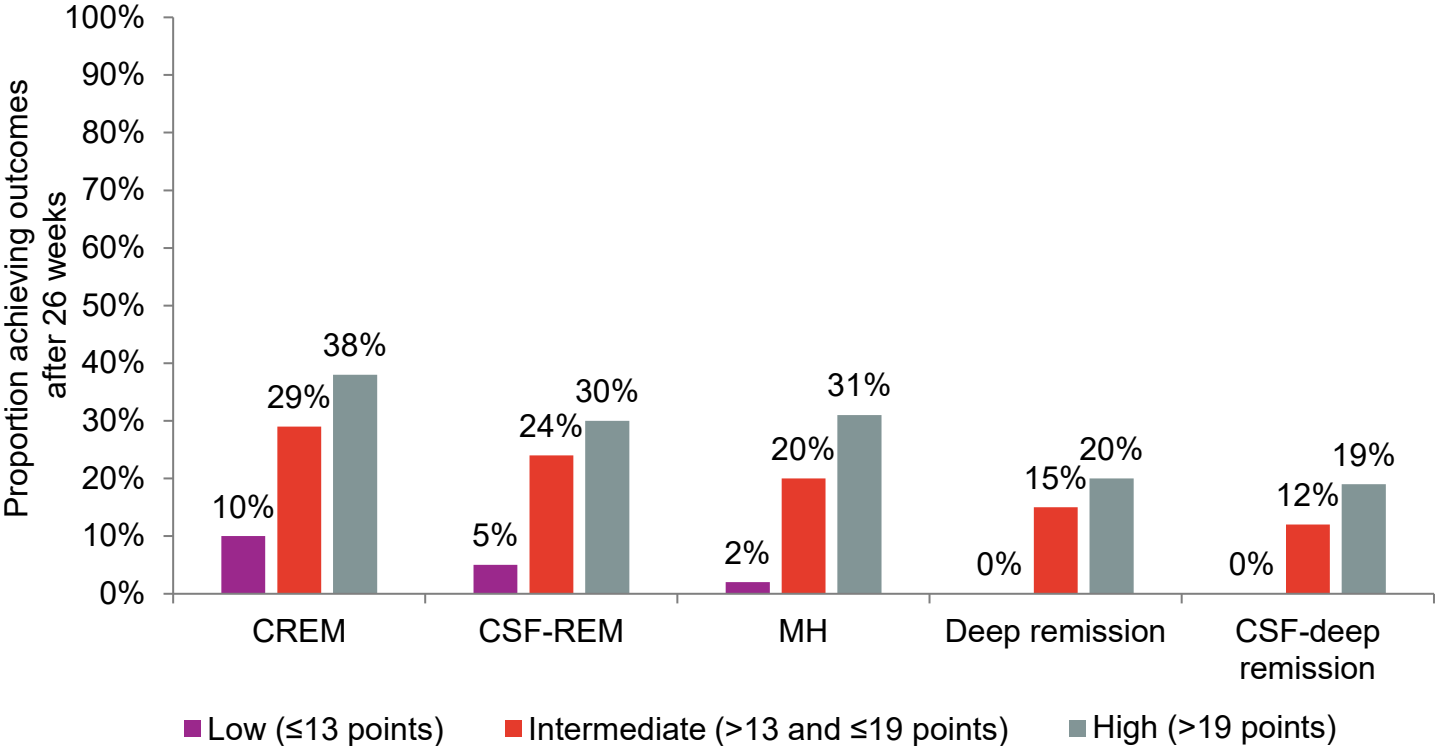
After the score for each variable had been determined, the VDZ-CDST classified patients based on their probability of response to Entyvio:

High probability of response
(>19 points)

Intermediate probability of response
(>13 to ≤19 points)

Low probability of response
(≤13 points)

Clinical outcomes according to predicted probability of response to Entyvio



The VDZ-CDST in CD is not intended to be used to diagnose or treat CD and should only be used as a scoring tool. The decision to prescribe Entyvio therapy is at the discretion of the HCP using knowledge of the patient's medical condition and individual needs.

CD, Crohn's disease; CREM, clinical remission; CSF-Deep Remission, corticosteroid-free deep remission; CSF-REM, corticosteroid-free remission; HCP, healthcare professional; MH, mucosal healing; TNF-α, tumour necrosis factor alpha; VDZ-CDST, Vedolizumab Clinical Decision Support Tool.

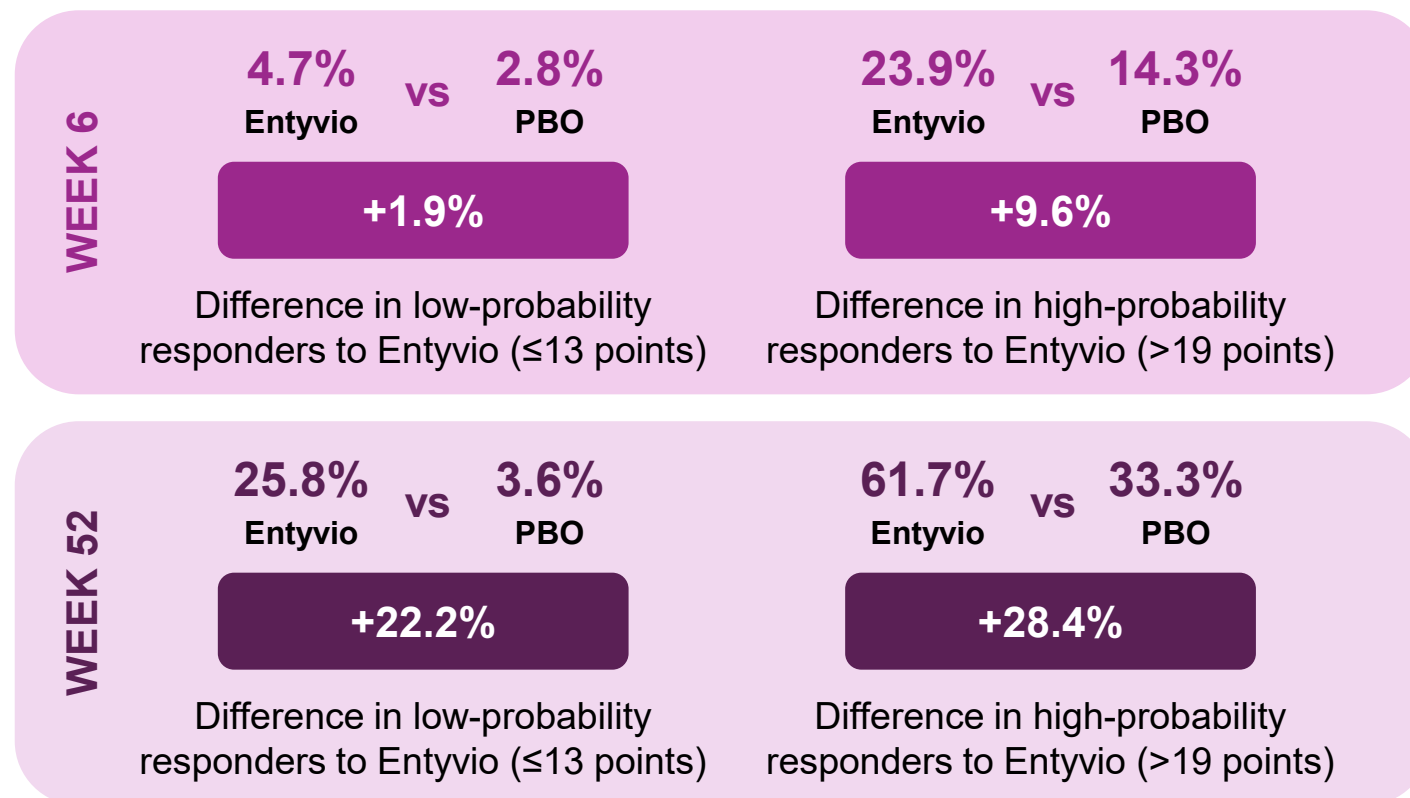
Dulai PS, et al. *Gastroenterology* 2018;155:687–695.

GEMINI 2 data established optimal cut-offs for low, intermediate, and high probability of response to Entyvio

- ▷ Participants were stratified based on response: **The top 25% were considered high probability and the bottom 25% were considered low probability**

CREM rates (ITT population)

- ▷ In the GEMINI 2 ITT population, at both Week 6 and Week 52, **the difference in CREM rates between would-be low-probability responders receiving Entyvio or PBO was smaller than in the high-probability responders**



The victory consortium data were used to validate the previously established cut-offs for probability of response to Entyvio

In the VICTORY validation cohort:

- ▷ Patients were stratified as low-, intermediate-, and high-probability responders to Entyvio:
 - The **13-point cut-off** had **high sensitivity** for identifying patients who were likely responders to Entyvio
 - The **19-point cut-off** had a **modest-high specificity** for identifying patients who were likely responders to Entyvio

Accuracy of prognostic tool using CRP as a categorical value

	Sensitivity (95% CI)	Specificity (95% CI)
13 points		
CREM after 26 weeks	92% (85–97%)	25% (20–31%)
Corticosteroid-free remission after 26 weeks*	94% (81–99%)	30% (22–38%)
Deep remission after 26 weeks	100% (88–100%)	28% (22–35%)
19 points		
CREM after 26 weeks	33% (24–44%)	80% (74–85%)
Corticosteroid-free remission after 26 weeks*	37% (22–55%)	77% (69–84%)
Deep remission after 26 weeks	38% (21–58%)	79% (73–84%)

*Performed for a subset of patients who were receiving corticosteroids at baseline.
CI, confidence interval; CREM, clinical remission; CRP, C-reactive protein.
Dulai PS, et al. *Gastroenterology* 2018;155:687–695.

Prior fistulising disease and CRP significantly impacted rates of MH and CREM, respectively, in the intermediate- and high-probability groups

- ▷ In the **low probability of response to Entyvio** group:
 - **Patients were similar** irrespective of prior TNF- α antagonists used, prior TNF- α intolerance/failure, or concomitant immunosuppressant use ($p>0.05$ for all comparisons)
- ▷ In the **intermediate to high probability response to Entyvio** groups:
 - **Rates of MH were significantly higher in patients without prior fistulising disease** (83% vs 68%, $p=0.05$)
 - When stratified by CRP categories, **patients with elevated (>3 mg/L) baseline CRP had lower rates of CREM** (38.1% vs 29.4% vs 20%, $p=0.01$)

These results support the optimal positioning of Entyvio within treatment guidelines as early in the disease course for moderate to severe IBD prior to complications

Entyvio has 1.9 million patient-years of exposure, and a favourable safety profile with up to 9 years of safety data¹⁻³



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Please consult the Summary of Product Characteristics for a full list of adverse events:²

- ▷ **The most commonly reported adverse reactions** are infections (such as nasopharyngitis, pneumonia, clostridium difficile, herpes zoster, upper respiratory tract infection, bronchitis, influenza and sinusitis), headache, nausea, pyrexia, fatigue, cough, arthralgia, paraesthesia, anal abscess, anal fissure, dyspepsia, constipation, abdominal distension, flatulence, liver enzymes increased, haemorrhoids and rectal haemorrhage²
- ▷ **Infusion-related reactions** (with symptoms such as dyspnoea, bronchospasm, urticaria, flushing, rash, and increased blood pressure and heart rate) have also been reported in patients treated with vedolizumab²
- ▷ **Hypersensitivity reactions** were also reported **in patients switching** from subcutaneous to intravenous **formulation**²
- ▷ **No clinically relevant differences in the overall safety profile and adverse reactions** were observed in patients who received subcutaneous vedolizumab compared with intravenous vedolizumab, with the exception of injection site reactions (with subcutaneous administration)²

Prospective use of the VDZ-CDST CD may improve cost-effectiveness and help HCPs engage in shared-decision making with patients with CD



Easy-to-use prognostic CDST, with a good predictive value for high/low responders to therapy with Entyvio



Likely improvement of cost-effectiveness as potential responders are identified, allowing for therapies to be selected accordingly



Discussion of results with patients offers HCPs the **opportunity to engage in shared decision-making conversations and personalised medicine**

The VDZ-CDST is backed by a growing body of evidence¹⁻⁸

Developed and tested through post-hoc analyses using data from over 2,400 patients across multiple cohorts globally¹⁻⁸

Five publications and three abstracts

Multiple clinical endpoints

Dulai et al. 2018 ¹	Dulai et al. 2020 ²	Dulai et al. 2021 ³	Alric et al. 2022 ⁴	Dulai et al. 2022 ⁵	Chalakatevaki et al. 2022 ⁶	Dulai et al. 2023 ⁷	Dulai et al. 2023 ⁸
Original publication	Dosing optimisation	CD-related surgeries	French-specific analysis for VDZ vs UST	Healthcare resource utilisation	Greek specific real-world analysis + VDZ vs UST	Subcutaneous VDZ analysis*	Pooled analysis
"Development and validation of a scoring system to predict outcomes of vedolizumab treatment in patients with Crohn's disease" The scoring system was developed using Phase 3 GEMINI 2 study data (n=814) and validated in VICTORY, a US-based real-world cohort (n=336) of CD patients treated with vedolizumab¹	"A clinical decision support tool may help to optimise vedolizumab therapy in Crohn's disease"	"Early Intervention With Vedolizumab and Longer-term Surgery Rates in Crohn's Disease: Post Hoc Analysis of the GEMINI Phase 3 and Long-term Safety Programmes"	"Vedolizumab Clinical Decision Support Tool Predicts Efficacy of Vedolizumab But Not Ustekinumab in Refractory Crohn's Disease"	"Probability of Response as Defined by a Clinical Decision Support Tool Is Associated with Lower Healthcare Resource Utilization in Vedolizumab-Treated Patients With Crohn's Disease"	"THE VEDOLIZUMAB CLINICAL DECISION SUPPORT TOOL FOR CROHN'S DISEASE EFFECTIVELY PREDICTS CLINICAL REMISSION AT 54 WEEKS IN A 'REAL WORLD' SETTING"	"Application of the clinical decision support tool to predict treatment outcomes in Crohn's disease in patients treated with vedolizumab subcutaneous formulation"	"Response Trajectory by the Clinical Decision Support Tool Probability Groups in Vedolizumab-treated Patients With Crohn's Disease: A Pooled Analysis of GEMINI 2, VISIBLE 2 and VERSIFY"
Peer-reviewed publication					Published as abstract		

*Further studies are needed to determine how the VDZ-CDST in CD scoring system can be used for subcutaneous vedolizumab.

CDST, clinical decision support tool; PRO, patient-reported outcome; QoL, quality of life; UST, ustekinumab; VDZ, vedolizumab.

1. Dulai PS, et al. *Gastroenterology* 2018;155:687–695; 2. Dulai PS, et al. *Aliment Pharmacol Ther* 2020;51:553–564; 3. Dulai PS, et al. *J Crohns Colitis* 2021;15:195–202; 4. Alric H, et al. *Inflamm Bowel Dis* 2022;28:218–225; 5. Dulai PS, et al. *Crohns Colitis* 360 2022;4:otact048; 6. Chalakatevaki K, et al. Poster P0503. UEG; 7. Dulai PS, et al. Poster 354. *J Crohn's Colitis* 2023;17:i490–i491; 8. Dulai PS, et al. Poster P0723. American College of Gastroenterology (ACG); October 20–25 2023, Vancouver CA.

The VDZ-CDST can be accessed on Takeda's dedicated IBD website



VDZ-CDST Calculator in CD

Vedolizumab clinical decision support tool (VDZ-CDST) calculator in Crohn's Disease (CD) is a digital scoring system that uses patient-based variables to support Healthcare Professionals predict the likelihood of response to vedolizumab therapy in an adult patient with CD.

Instructions for Use:

- Complete the 5 questions below being sure to enter values for Baseline Albumin and Baseline C-reactive protein with the correct units.
- Press the calculate button to receive a probability score of low, medium, or high, which indicates how likely a patient is to respond to the 26 weeks of therapy.
- Please find a link to the publication that validates the scoring system [here](#).

Please enter your inputs in the following fields: ?

*All fields are required

Prior bowel surgery?			no	yes
Prior TNF-antagonist therapy?			no	yes
Prior fistulising disease?			no	yes
Baseline Albumin:			g/L	g/dL
Baseline C-reactive protein:			mg/L	mg/dL

Calculate

Easy to access, easy to use.
Click or scan the QR code below to find the VDZ-CDST online, or visit gastroenterologyhub.ie for more resources on Entyvio in IBD.



ENTYVIO® (vedolizumab) PRESCRIBING INFORMATION for REPUBLIC OF IRELAND

Refer to the Summary of Product Characteristics (SmPC) before prescribing.

Presentation: Entyvio intravenous (IV): 300 mg powder for concentrate for solution for infusion. Each Entyvio 300 mg vial contains 3.31 mg of polysorbate 80. Entyvio subcutaneous (S/C): 108 mg solution for injection in pre-filled pen. Each 108mg pre-filled pen contains 1.48 mg of polysorbate 80. **Indication:** Entyvio IV and Entyvio S/C: Adult patients with moderately to severely active ulcerative colitis (UC)/Crohn's disease (CD) who have had an inadequate response with, lost response to, or were intolerant to either conventional therapy or a tumour necrosis factor-alpha (TNFα) antagonist. **Entyvio IV only:** Adult patients with moderately to severely active chronic pouchitis, who have undergone proctocolectomy and ileal pouch anal anastomosis for UC, and have had an inadequate response with or lost response to antibiotic therapy. **Dosage and administration:** Treatment should be initiated and supervised by a specialist healthcare professional experienced in diagnosis and treatment of UC, CD or pouchitis. **Entyvio IV:** Patients should be monitored during and after infusion in a setting equipped to manage anaphylaxis. **UC:** Recommended dose regimen 300 mg administered by IV infusion over 30 minutes at 0, 2, 6 weeks and every 8 weeks thereafter. Discontinue treatment if no evidence of therapeutic benefit by week 10. If patients experience a decrease in response, they may benefit from increased dosage frequency to 300 mg every 4 weeks. Corticosteroids may be reduced/discontinued in patients who respond to treatment with Entyvio. If therapy is interrupted and needs to be restarted, Entyvio dosing every 4 weeks may be considered. **CD:** Recommended dose regimen is 300 mg administered by IV infusion over 30 minutes at 0, 2, 6 weeks and every 8 weeks thereafter. Patients who have not shown evidence of therapeutic benefit may benefit from a dose at week 10. Continue therapy every 8 weeks from week 14 in responding patients. Therapy should be discontinued if no evidence of therapeutic benefit is observed by week 14. If therapy is interrupted and needs to be restarted, Entyvio dosing every 4 weeks may be considered. **Pouchitis:** Recommended dose regimen is 300 mg administered by IV infusion at 0, 2 and 6 weeks and then every 8 weeks thereafter. Treatment should be initiated in parallel with standard of care antibiotic (e.g., four-week of ciprofloxacin). Therapy discontinuation should be considered if no evidence of therapeutic benefit is observed by week 14. There are no retreatment data available if therapy is interrupted and needs to be restarted. **Entyvio S/C:** UC and CD: Recommended dose regimen, following at least two IV infusions, is 108mg administered by subcutaneous injection once every 2 weeks. The first S/C dose should be administered in place of the next scheduled IV dose and every 2 weeks thereafter. Insufficient data to determine if patients who experience a decrease in response on maintenance treatment with Entyvio S/C would benefit from an increase in dosing frequency. No data on transition of patients

from Entyvio S/C to Entyvio IV during maintenance therapy. **Paediatric populations:** No data available in children aged 0-17 years. Not recommended. **Elderly patients:** No dosage adjustment required. **Renal or hepatic impairment:** Entyvio has not been studied in these populations. No dose recommendation can be given. **Contraindications:** Hypersensitivity to Entyvio or any of the excipients. **Excipients list IV:** L histidine, L histidine monohydrochloride, L arginine hydrochloride, Sucrose, Polysorbate 80 (E 433). **Excipient list S/C:** Citric acid monohydrate (E 330), sodium citrate dihydrate (E 331), L histidine, L histidine monohydrochloride, L arginine hydrochloride, polysorbate 80 (E 433), water for injections. Active severe infections such as tuberculosis (TB), sepsis, cytomegalovirus, listeriosis and opportunistic infections such as Progressive Multifocal Leukoencephalopathy (PML). **Warnings and precautions:** Entyvio IV: Patients should be observed continuously during infusions for signs/symptoms of hypersensitivity reactions. Patients should continue to be observed for two hours following infusion completion for the first two infusions and one hour for subsequent infusions. **Infusion-related reactions (IRR):** Hypersensitivity reactions have been reported, the majority were of mild to moderate severity. Hypersensitivity reactions also reported in patients switching from subcutaneous to intravenous formulation. Discontinue treatment if anaphylaxis or other serious allergic reactions occur and initiate appropriate treatment. In mild to moderate IRR, slow or interrupt infusion. Consideration for pre-treatment with antihistamine, hydrocortisone and/or paracetamol should be given prior to next infusion, for patients with history of mild/moderate IRR to Entyvio. **Entyvio IV and Entyvio S/C:** **Infections:** Not recommended in patients with active, severe infections until infections are controlled. Consider withholding in patients who develop severe infection while on treatment with Entyvio. Before initiating treatment, patients must be screened for TB. If latent TB is diagnosed, anti-tuberculosis appropriate treatment must be initiated prior to Entyvio treatment. **Progressive Multifocal Leukoencephalopathy (PML):** John Cunningham (JC) virus infection resulting in PML and death has occurred in patients treated with other integrin receptor antagonists and systemic immunosuppressive agents. A risk of PML cannot be ruled out. Monitor patients for any new or worsening neurological signs/symptoms. **Malignancy:** Underlying increased risk of malignancy in UC and CD. Immunomodulatory products may increase risk. **Prior and concurrent use of biological products:** No clinical data available for Entyvio use in patients previously treated with natalizumab or rituximab. Patients previously exposed to natalizumab should wait at least 12 weeks prior to initiating Entyvio therapy. Entyvio not recommended for concomitant use with biologic immunosuppressants as no clinical data available. **Live and oral vaccines:** Patients may continue to receive non-live vaccines.

Patients recommended to be up-to-date with all appropriate immunisations prior to initiating Entyvio. Live vaccines may be administered concurrently only if benefit clearly outweighs risk. **Interactions:** No interaction studies performed. **UC and CD:** Concomitant administration of corticosteroids, immunomodulators (azathioprine, 6-mercaptopurine, and methotrexate) and aminosalicylates did not have a clinically meaningful effect on Entyvio pharmacokinetics. **Pouchitis:** Concomitant administration of antibiotics have been observed. The effect on the pharmacokinetics of commonly co-administered medicinal compounds has not been studied. **Fertility, pregnancy and lactation:** There are no data on the effects of vedolizumab on human fertility. Women of childbearing potential should use adequate contraception and continue for at least 18 weeks after last Entyvio treatment. Preferable to avoid use of Entyvio during pregnancy unless benefits clearly outweigh potential risk to both the mother and foetus. Entyvio has been detected in human milk. The effects on breast-fed infants and milk production are unknown. Use of Entyvio in lactating women should consider the benefit of therapy against potential risks to the infant. **Undesirable effects:** No clinically relevant differences in overall safety profile and adverse reactions observed in patients who received Entyvio S/C compared with Entyvio IV except for injection site reactions (with S/C administration). **Very Common (≥1/10):** nasopharyngitis, headache, arthralgia. **Common (≥1/100, <1/10):** injection site reactions (S/C only), pneumonia, Clostridium difficile infection, bronchitis, gastroenteritis, upper respiratory tract infection, influenza, sinusitis, pharyngitis, herpes zoster, paraesthesia, hypertension, oropharyngeal pain, nasal congestion, cough, anal abscess, anal fissure, nausea, dyspepsia, constipation, abdominal distension, flatulence, haemorrhoids, rectal haemorrhage*, liver enzyme increased, rash, pruritus, eczema, erythema, night sweats, acne, muscle spasm, back pain, muscular weakness, fatigue, pain in extremity, pyrexia, infusion related reaction (IV only) (asthenia* and chest discomfort*), infusion site reaction (IV only) (including: infusion site pain and infusion site irritation). *Reported in the EARNEST pouchitis study. **Uncommon (≥ 1/1,000 to < 1/100) includes:** respiratory tract infection, blurred vision, vulvovaginal candidiasis, oral candidiasis, folliculitis. **Very rare (< 1/10,000):** anaphylactic reaction, anaphylactic shock, hepatitis. **Not known:** interstitial lung disease. **Refer to the SmPC for details on full side effect profile and interactions.** **Legal Classification:** POM. **Marketing authorisation (MA):** Entyvio IV: EU/1/14/923/001. Entyvio S/C: EU/1/14/923/005. **Name and Address of MA holder:** Takeda Pharma A/S, Delta Park 45, 2665 Vallengbaek Strand, Denmark. Additional information is available on request at: medinfoemea@takeda.com. **PI Approval Code:** pi-03975. **Date of revision:** Feb 2026.

Adverse Events should be reported to the Pharmacovigilance Unit at the Health Products Regulatory Authority. Reporting forms and information can be found at: www.hpra.ie. Adverse events should also be reported to Takeda at: AE.GBR-IRL@takeda.com.


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