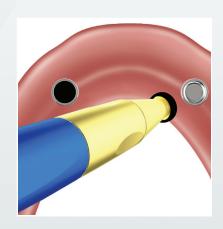


Technique Manual









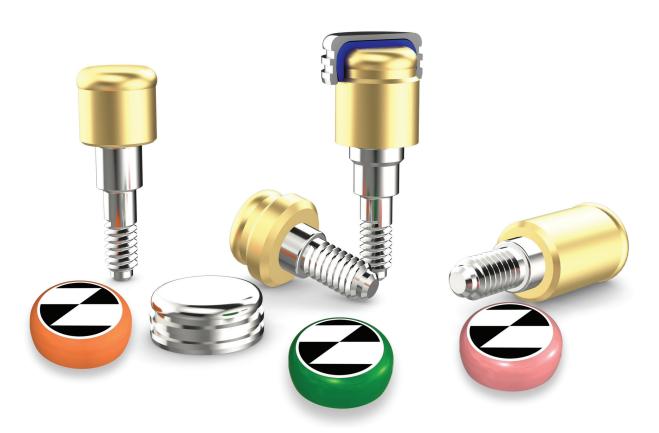




Good just got BETTER with ZimVie's new removable attachment system, OverdenSURE!

Our OverdenSURE product line features a Zirconium Nitride abutment coating for excellent aesthetics and function, and a wider range of abutment sizes for increased restorative flexibility, all wrapped in a classic system design that is intuitive to the user.

Zirconium Nitride is a fully bio-compatible material that exhibits increased hardness and wear resistance,^{1,2} reduced bacterial adhesion,^{3,4,5,6,7} and enhanced lubricity compared to the traditionally used Titanium Nitride.¹



■ Table of Contents

System Overview – OverdenSURE Abutments	4
Considerations	4
Selecting the OverdenSURE Abutments	4
Selecting the OverdenSURE Retention Inserts	5
Specifications	5
Instrumentation and Components Needed	5
Seating the OverdenSURE Abutments	6
Tightening the OverdenSURE Abutments	6
Confirm the OverdenSURE Abutments are Seated	6
Direct Restorative Technique	7
Prepare the Denture for Processing	7
Pick-Up OverdenSURE Housing Caps	8
Remove OverdenSURE Black Inserts	8
Place Final OverdenSURE Retention Inserts	9
Deliver the Removable Prosthesis	9
Indirect Restorative Technique	10
Clinician – Take Impressions of the OverdenSURE Abutments	10
Transfer Technique	10
Laboratory – Fabricate the Working Cast	11
Laboratory – Record Base and Occlusion Rim	11
Clinician – Occlusion Record	11
Laboratory – Articulate	11
Clinician – Denture Try-In	12
Laboratory – Process the Removable Prosthesis	12
Clinician – Remove OverdenSURE Black Inserts	12
Clinician – Place Final OverdenSURE Retention Inserts	13
Deliver the Removable Prosthesis	13
Ordering Info	14

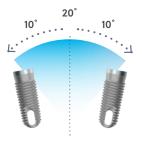
Note: Images shown throughout this manual are representational in nature and may not be to scale or display the exact geometry or color of the actual components.

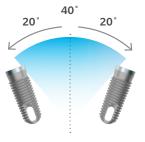
OverdenSURE System Overview

OverdenSURE Abutments

Considerations

- Tissue-supported removable overdentures on 2 or more implants.
- Partially edentulous overdentures with 1 or more implants.
- · Limited interarch distance.
- Angle correction with up to 20° between divergent implants when using the standard retention inserts (blue, pink and clear) or the standard retention insert kits.
- Angle correction with up to 40° between divergent implants when using the extended retention inserts (red, yellow and green) or the extended retention insert kits.





Selecting the OverdenSURE Abutments

- Choose a cuff length based on the tissue depth.
- Determine the tissue depth by measuring from the coronal rim of the implant body to the crest of the soft-tissue in three or four areas.
- Choose the corresponding abutment cuff height that equals the tissue measurement or is the next closest higher size.













Selecting the OverdenSURE Retention Inserts

The OverdenSURE Retention Inserts have been designed to provide the correct amount of strength for each level of retention while maintaining a color coding system that is intuitive to the clinician.

Specifications

· Abutment: Titanium alloy with light-gold Zirconium Nitride coating.

Housing: Titanium Alloy

• Retention Inserts: Nylon

Retention Inserts			
Up to 20° Angle Correction			
1.5lbs / 680g	1.0lbs / 450g		
3.0lbs / 1360g	2.0lbs / 910g		
5.0lbs / 2270g	4.0lbs / 1810g		

Instrumentation and Components Needed

• OverdenSURE Abutment Insertion and Removal Tool [ODS-IRTOOL]





OverdenSURE Abutment Analogs [ODS-AA01]



• ZimVie Restorative Torque Wrench [TWR]



OverdenSURE Abutment Driver [ODS-DRVR]



• OverdenSURE Impression Copings [ODS-IC01]



Seating the OverdenSURE Abutments

• Seat the abutment into the implant and thread it until finger-tight using the transporter included with each abutment.

Tightening the OverdenSURE Abutments

 Manually engage the OverdenSURE driver [ODS-DRVR] with the abutment, aligning the axis of the driver with the axis of the abutment and fitting the fingers of the driver over the abutment's circumference.

Tip: For easier driver-to-abutment engagement, slightly rotate the driver over the abutment until you feel the internal tri-lobe engage first, then apply normal pressure downward to ensure the driver's outer fingers have also engaged the abutment's circumference

- Insert the Torque Ratchet Wrench [TWR] onto the driver and torque the abutments to the indicated force:
- Certain® and ExHex OverdenSURE Abutments: 20 Ncm
- Tapered Screw-Vent® OverdenSURE Abutments: 30 Ncm

Caution: To remove the driver from the abutment. jiggle the driver slightly from side to side in order to disengage the driver from the abutment first. Taking care that the wrench is properly engaged with the

driver, then remove the wrench [TWR] and driver [ODS-DRVR] from the mouth.

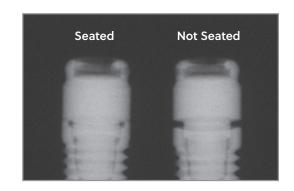
Confirm the OverdenSURE Abutments are Seated

- Radiograph the interfaces to verify complete seating of the abutments on all of the implants.
- Place the film perpendicular to the interface of the abutment on the implant.









Direct Restorative Technique

Prepare the Denture for Processing

- Place the OverdenSURE Housing Caps [ODS-RH01] with the pre-loaded Black Inserts on the abutments and press down firmly to make sure they are fully seated.
- Place a Block-out Spacer [ODS-BS020] at the base of the abutments to prevent acrylic resin from flowing into undercuts of the Housing Caps.

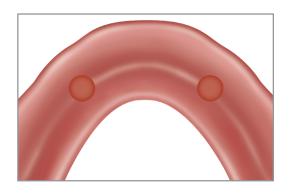
Note: In all geographies with the exception of the United States, OverdenSURE Standard Abutment Retention Kit [ODS-RIKIT2001] is included with every abutment. 1 Housing Cap [ODS-RH01] pre-loaded with a Black Insert and 1 Block-out Spacer are included within this kit and packaged with every abutment.

Note: In the United States, OverdenSURE Abutments are packaged individually and retention inserts (ODSZ-RIKIT2001 or ODSZ-RIKIT4001) must be ordered separately.

· Apply contact-detecting material to the intaglio surface of the denture. Seat the denture over the Housing Caps [ODS-RH01] and verify that it is completely seated on the ridge.



- With a recess bur create the relief pockets where the Housing Caps will fit in order to be processed into the denture.
- · Create undercuts around the relieved pockets to increase mechanical retention and open lingual/palatal vents to allow excess material to flow out of the denture.



Pick-Up OverdenSURE Housing Caps

- Place autopolymerizing acrylic resin or light cure composite resin over the OverdenSURE Housing Caps [ODS-RH01] and into the relieved pockets in the denture.
- Place and position the denture in the mouth and have the patient close lightly into centric occlusion. Allow the acrylic resin to set per the manufacturer's instructions.
- Detach the denture from the abutments and verify that the Housing Caps have been successfully processed into the denture.
- Fill any voids with autopolymerizing acrylic resin or light cure composite resin. Once cured, remove any excess material with a grind bur.

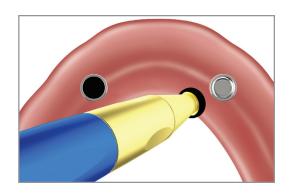




Remove OverdenSURE Black Inserts

- Using the OverdenSURE Removal and Insertion Tool [ODS-IRTOOL], remove the Black Inserts from each Housing Cap.
- To do so, make sure the Removal and Insertion Tool is set to "removal mode".
- This is achieved by turning the golden head of the tool two full rotations counter-clockwise. You will notice the blue tip recess into the tool.
- Insert the tool into the Black Insert and tilt it so the edge of the tip engages the inner lip of the insert.
- Once the tool has full engagement, pull it out.
- To remove the Black Insert from the tool, turn the golden head of the tool two full rotations clockwise. The blue tip will emerge and push off the Black Insert.





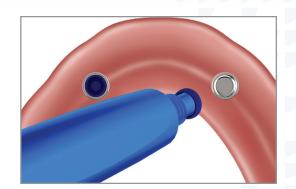
Place Final OverdenSURE Retention Inserts

- Ensure the Removal and Insertion Tool [ODS-IRTOOL] is set to "insertion mode." To do so, completely unscrew the golden head from the blue portion of the tool.
- Select the appropriate Retention Insert and place it on the insertion tip of the tool. Firmly insert each final Retention Insert into the empty Housing Caps and verify they sit flush with the rim of the Housing Caps.

Note: In all geographies with the exception of the United States, OverdenSURE Standard Abutment Retention Kit [ODS-RIKIT2001] is included with every abutment.

1 Blue Retention Insert (Extra Light), 1 Pink Retention Insert (Light), 1 Clear Retention Insert (Medium), and 1 Red Retention Insert (Extra Light; Extended Range) are included within this kit and packaged with every abutment.

Note: In the United States, OverdenSURE Abutments are packaged individually and retention inserts (ODSZ-RIKIT2001 OR ODSZ-RIKIT4001) must be ordered separately.



Deliver the Removable Prosthesis

- Seat the prosthesis on the OverdenSURE Abutments and press down so that the Retention Inserts snap onto the abutments.
- · Verify the occlusion.
- · Have the patient remove and insert the prosthesis to ensure the retention is adequate. If the retention level needs to be adjusted, select the appropriate Retention Insert and repeat the necessary steps.

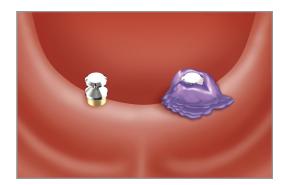


Indirect Restorative Technique

Clinician - Take Impressions of the OverdenSURE Abutments

- A custom or stock closed impression tray may be used for this. Provide relief for the height of the OverdenSURE Abutments and Impression Copings [ODS-IC01] plus 2 mm. The Impression Copings are 4.5 mm in height.
- Place the OverdenSURE Impression Copings onto the abutments. Inject light-body impression material around the copings and record a full-arch impression with medium-body material. Allow the material to set per the manufacturer's instructions.
- Sometimes it is helpful to place impression adhesive on the impression copings to ensure their removal in the impression.

Note: OverdenSURE Impression Copings [ODS-IC01] are sold separately.



- · Remove the impression from the mouth and verify that the impression material completely adapted around each OverdenSURE Impression Coping. The impression copings should remain inside the impression.
- An optional technique is to use the patient's existing denture in combination with the OverdenSURE Housing Caps [ODS-RH01] with a pre-loaded Black Insert for a reline impression.



Transfer Technique

 Insert the OverdenSURE Abutment Analogs [ODS-AA01] into the Impression Copings located within the impression material and send the impression to the laboratory.



Laboratory – Fabricate the Working Cast

 Verify that the OverdenSURE Abutment Analogs [ODS-AA01] are secure in the Impression Copings and pour the model.



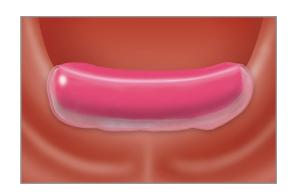
Laboratory – Record Base and Occlusion Rim

• Fabricate a record base and wax occlusion rim and send to the clinician.



Clinician - Occlusion Record

• Place the occlusion rim in the mouth and take the interocclusal records.



Laboratory – Articulate

- Articulate casts using the interocclusal record.
- Set the denture teeth on the record base for the wax try-in.



Clinician - Denture Try-In

- · Place the wax denture in the mouth. Verify occlusion, aesthetics and phonetics. Make any necessary adjustments.
- If major adjustments are necessary, make a new interocclusal record and return it to the laboratory for a new articulator mounting, wax denture set-up and try in.



Laboratory - Process the Removable Prosthesis

- After the wax try-in is verified, flask the denture on the cast.
- Boil out the wax and separate the flask.
- Place the OverdenSURE White Spacers over Abutment Analogs to prevent acrylic resin from flowing under the Housing Caps.
- Place the OverdenSURE Housing Caps [ODS-RH01] with the pre-loaded Black Inserts on the Abutment Analogs and press down firmly to make sure they are fully seated.
- Process the denture following standard procedures.

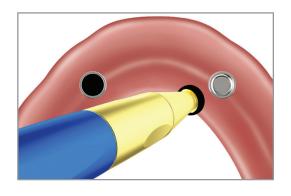


Clinician - Remove OverdenSURE Black Inserts

- Using the OverdenSURE Removal and Insertion Tool [ODS-IRTOOL], remove the Black Inserts from each Housing Cap.
- To do so, make sure the Removal and Insertion Tool is set to "removal mode". This is achieved by turning the golden head of the tool two full rotations counter-clockwise. You will notice the blue tip recess into the tool.



- Insert the tool into the Black Insert and tilt it so the edge of the tip engages the inner lip of the insert.
- Once the tool has full engagement pull it out.
- To remove the Black Insert from the tool, turn the golden head of the tool two full rotations clockwise. The blue tip will emerge and push off the Black Insert.



Clinician – Place Final OverdenSURE Retention Inserts

- Ensure the Removal and Insertion Tool [ODS-IRTOOL] is set to "insertion mode". To do so, completely unscrew the golden head from the blue portion of the tool.
- Select the appropriate Retention Insert and place it on the insertion tip of the tool.
- Firmly insert each final Retention Insert into the empty Housing Caps, and verify they sit flush with the rim of the Housing Caps.

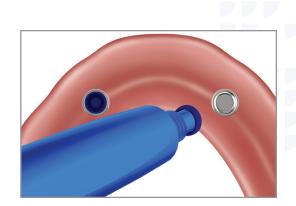
Note: In all geographies with the exception of the United States, OverdenSURE Standard Abutment Retention Kit [ODS-RIKIT2001] is included with every abutment.

1 Blue Retention Insert (Extra Light), 1 Pink Retention Insert (Light), 1 Clear Retention Insert (Medium), and 1 Red Retention Insert (Extra Light; Extended Range) are included within this kit and packaged with every abutment.

Note: In the United States, OverdenSURE Abutments are packaged individually and retention inserts (ODSZ-RIKIT2001 OR ODSZ-RIKIT4001) must be ordered separately.

Deliver the Removable Prosthesis

- Seat the prosthesis on the OverdenSURE Abutments and press down so that the Retention Inserts snap onto the abutments.
- · Verify the occlusion.
- Have the patient remove and insert the prosthesis to ensure the retention is adequate. If the retention level needs to be adjusted, select the appropriate Retention Insert and repeat the "Selecting the OverdenSURE Retention Inserts" steps.
- · Instruct the patient on proper hygiene care and required maintenance visits.





Ordering Info

OverdenSURE Abutments

US only

Certain® Implant System			
Collar	Seating Surface		
Height	3.4 mm	4.1 mm	5.0 mm
1.0 mm	ODSA-CERT301	ODSA-CERT401	ODSA-CERT501
2.0 mm	ODSA-CERT302	ODSA-CERT402	ODSA-CERT502
3.0 mm	ODSA-CERT303	ODSA-CERT403	ODSA-CERT503
4.0 mm	ODSA-CERT304	ODSA-CERT404	ODSA-CERT504
5.0 mm	ODSA-CERT305	ODSA-CERT405	ODSA-CERT505
6.0 mm	ODSA-CERT306	ODSA-CERT406	ODSA-CERT506

All markets outside the US

Certain Implant System			
Collar	Seating Surface		
Height	3.4 mm	4.1 mm	5.0 mm
1.0 mm	ODS-CERT301	ODS-CERT401	ODS-CERT501
2.0 mm	ODS-CERT302	ODS-CERT402	ODS-CERT502
3.0 mm	ODS-CERT303	ODS-CERT403	ODS-CERT503
4.0 mm	ODS-CERT304	ODS-CERT404	ODS-CERT504
5.0 mm	ODS-CERT305	ODS-CERT405	ODS-CERT505
6.0 mm	ODS-CERT306	ODS-CERT406	ODS-CERT506



US only

Tapered Screw-Vent [®] Implant System			
Collar	Seating Surface		
Height	3.5 mm	4.5 mm	5.7 mm
1.0 mm	ODSA-TSV301	ODSA-TSV401	ODSA-TSV501
2.0 mm	ODSA-TSV302	ODSA-TSV402	ODSA-TSV502
3.0 mm	ODSA-TSV303	ODSA-TSV403	ODSA-TSV503
4.0 mm	ODSA-TSV304	ODSA-TSV404	ODSA-TSV504
5.0 mm	ODSA-TSV305	ODSA-TSV405	ODSA-TSV505
6.0 mm	ODSA-TSV306	ODSA-TSV406	ODSA-TSV506

All markets outside the US

Tapered Screw-Vent® Implant System			
Collar	Seating Surface		
Height	3.5 mm	4.5 mm	5.7 mm
1.0 mm	ODS-TSV301	ODS-TSV401	ODS-TSV501
2.0 mm	ODS-TSV302	ODS-TSV402	ODS-TSV502
3.0 mm	ODS-TSV303	ODS-TSV403	ODS-TSV503
4.0 mm	ODS-TSV304	ODS-TSV404	ODS-TSV504
5.0 mm	ODS-TSV305	ODS-TSV405	ODS-TSV505
6.0 mm	ODS-TSV306	ODS-TSV406	ODS-TSV506



US only

External Hex [®] Implant System			
Collar	Seating Surface		
Height	3.4 mm	4.1 mm	5.0 mm
1.0 mm	ODSA-EXHEX301	ODSA-EXHEX401	ODSA-EXHEX501
2.0 mm	ODSA-EXHEX302	ODSA-EXHEX402	ODSA-EXHEX502
3.0 mm	ODSA-EXHEX303	ODSA-EXHEX403	ODSA-EXHEX503
4.0 mm	ODSA-EXHEX304	ODSA-EXHEX404	ODSA-EXHEX504
5.0 mm	ODSA-EXHEX305	ODSA-EXHEX405	ODSA-EXHEX505
6.0 mm	ODSA-EXHEX306	ODSA-EXHEX406	ODSA-EXHEX506

Retention Kit ODSZ-RIKIT2001 not included, please order separately. Available only in the U.S.

All markets outside the US

External Hex [®] Implant System			
Collar	Seating Surface		
Height	3.4 mm	4.1 mm	5.0 mm
1.0 mm	ODS-EXHEX301	ODS-EXHEX401	ODS-EXHEX501
2.0 mm	ODS-EXHEX302	ODS-EXHEX402	ODS-EXHEX502
3.0 mm	ODS-EXHEX303	ODS-EXHEX403	ODS-EXHEX503
4.0 mm	ODS-EXHEX304	ODS-EXHEX404	ODS-EXHEX504
5.0 mm	ODS-EXHEX305	ODS-EXHEX405	ODS-EXHEX505
6.0 mm	ODS-EXHEX306	ODS-EXHEX406	ODS-EXHEX506



Retention Kit ODS-RIKIT2001 included. Available in all active geographies except the U.S.

OverdenSURE Attachments

US only

US OTHY	
Description	Item No.
Retention Kit 20° Qty 1 Set	ODSZ-RIKIT2001
Retention Kit 20° Qty 2 Sets	ODSZ-RIKIT2002
Retention Kit 40° Qty 1 Set	ODSZ-RIKIT4001
Retention Kit 40° Qty 2 Sets	ODSZ-RIKIT4002
Blue Retention Insert 20° Qty 4	ODSZ-RIB2004
Pink Retention Insert 20° Qty 4	ODSZ-RIP2004
Clear Retention Insert 20° Qty 4	ODSZ-RIC2004
Red Retention Insert 40° Qty 4	ODSZ-RIR4004
Yellow Retention Insert 40° Qty 4	ODSZ-RIY4004
Green Retention Insert 40° Qty 4	ODSZ-RIG4004

All markets outside the US

Description	Item No.	
Retention Kit 20° Qty 1 Set	ODS-RIKIT2001	
Retention Kit 20° Qty 2 Sets	ODS-RIKIT2002	
Retention Kit 40° Qty 1 Set	ODS-RIKIT4001	
Retention Kit 40° Qty 2 Sets	ODS-RIKIT4002	
Blue Retention Insert 20° Qty 4	ODS-RIB2004	
Pink Retention Insert 20° Qty 4	ODS-RIP2004	
Clear Retention Insert 20° Qty 4	ODS-RIC2004	
Red Retention Insert 40° Qty 4	ODS-RIR4004	
Yellow Retention Insert 40° Qty 4	ODS-RIY4004	
Green Retention Insert 40° Qty 4	ODS-RIG4004	

OverdenSURE Tools and Accessories

Description	Item No.
Retention Housing Cap Qty 1	ODS-RH01
Retention Housing Cap Qty 4	ODS-RH04
Retention Housing Cap Qty 10	ODS-RH010
Blockout Spacer Qty 20	ODS-BS020
Abutment Driver	ODS-DRVR
Removal and Insertion Tool	ODS-IRTOOL
Impression Coping Qty 1	ODS-IC01
Impression Coping Qty 4	ODS-IC04
Impression Coping Qty 10	ODS-IC010
Abutment Bar Attachment Qty 1	ODS-BARATT01
Abutment Bar Attachment Qty 2	ODS-BARATT02
Abutment Bar Attachment Qty 4	ODS-BARATT04
Analog Qty 1	ODS-AA01
Analog Qty 4	ODS-AA04
Analog Qty 10	ODS-AA010













References:

- 1. Oh DJ, Kim HJ, Chung CH. A study on mechanical properties of TiN, ZrN and WC coated film on the titanium alloy surface. The Journal of Korean Academy of Prosthodontics. 2006;44(6):740-50.
- 2. UI-Hamid A. Synthesis, microstructural characterization and nanoindentation of Zr, Zr-nitride and Zr-carbonitride coatings deposited using magnetron sputtering. J Adv Res. 2020 Nov 25;29:107-119.
- 3. Grössner-Schreiber B, Griepentrog M, Haustein I, Müller WD, Lange KP, Briedigkeit H, Göbel UB. Plaque formation on surface modified dental implants. An in vitro study. Clin Oral Implants Res. 2001 Dec;12(6):543-51.
- 4. Groessner-Schreiber B, Hannig M, Dück A, Griepentrog M, Wenderoth DF. Do different implant surfaces exposed in the oral cavity of humans show different biofilm compositions and activities? European journal of oral sciences. 2004 Dec;112(6):516-22.
- 5. Grössner-Schreiber B, Teichmann J, Hannig M, Dörfer C, Wenderoth DF, Ott SJ. Modified implant surfaces show different biofilm compositions under in vivo conditions. Clin Oral Implants Res. 2009 Aug;20(8):817-26.
- 6. Brunello G, Brun P, Gardin C, Ferroni L, Bressan E, Meneghello R, Zavan B, Sivolella S. Biocompatibility and antibacterial properties of zirconium nitride coating on titanium abutments: An in vitro study. PLoS One. 2018 Jun 26;13(6):e0199591.
- 7. Zhurakivska K, Ciacci N, Troiano G, Caponio VC, Scrascia R, Pallecchi L, Lo Muzio L, Arena F. Nitride-Coated and Anodic-Oxidized Titanium Promote a Higher Fibroblast and Reduced Streptococcus gordonii Proliferation Compared to the Uncoated Titanium. Prosthesis. 2020 Dec;2(4):333-9.

For more information visit ZimVie.com

ZimVie

4555 Riverside Drive Palm Beach Gardens, FL 33410 1-800-342-5454 Phone: +1-561-776-6700

Fax: +1-561-776-1272



Unless otherwise indicated, as referenced herein, all trademarks and intellectual property rights are the property of ZimVie Inc. or an affiliate; and all products are manufactured by one or more of the dental subsidiaries of ZimVie Inc. (Biomet 3i, LLC, Zimmer Dental, Inc., etc.) and marketed and distributed by ZimVie Dental and its authorized marketing partners. OverdenSURE is manufactured by Terrats Medical S.L. For additional product information, please refer to the individual product labeling or instructions for use. Product clearance and availability may be limited to certain countries/regions. This material is intended for clinicians only and does not comprise medical advice or recommendations. Distribution to any other recipient is prohibited. This material may not be copied or reprinted without the express written consent of ZimVie Inc. ZVINST0073 REV A 04/23 ©2023 ZimVie Inc. All rights reserved.