

## DICOM Correction Proposal

STATUS	Final Text
Date of Last Update	2025/04/01
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Correction Number	CP-2434
Log Summary:	Add new IOL calculation formulas to CID 4236
Name of Standard	PS3.16 2025a
Rationale for Correction:	<p>CID 4236 "IOL Calculation Formula" defines formulas used to calculate Intraocular Lenses (IOL).</p> <p>During the last years, new formulas have been defined and used to improve the patient's vision after a cataract surgery, which are not covered by current specification of CID 4236.</p> <p>The scope of this proposal is to add code definitions for these new formulas to CID 4236.</p>
Correction Wording:	

*In PS3.16, Annex B.1 modify CID 4236 to add codes for new IOL calculation formulas:*

### CID 4236 IOL Calculation Formula

**Version:**      **2019012420250401**

**Table CID 4236. IOL Calculation Formula**

Coding Scheme Designator	Code Value	Code Meaning
DCM	111760	Haigis
DCM	111761	Haigis-L
DCM	111762	Holladay 1
DCM	111763	Holladay 2
DCM	111764	Hoffer Q
DCM	111765	Olsen
DCM	111766	SRKII
DCM	111767	SRK-T
DCM	111860	Haigis Toric
DCM	111861	Haigis-L Toric
DCM	111862	Barrett Toric
DCM	111863	Barrett True-K

Coding Scheme Designator	Code Value	Code Meaning
DCM	111864	Barrett True-K Toric
DCM	111865	Barrett Universal II
<b><u>DCM</u></b>	<b><u>111868</u></b>	<b><u>Kane</u></b>
<b><u>DCM</u></b>	<b><u>111869</u></b>	<b><u>Kane Toric</u></b>
<b><u>DCM</u></b>	<b><u>111870</u></b>	<b><u>Kane Keratoconus</u></b>
<b><u>DCM</u></b>	<b><u>111871</u></b>	<b><u>Barrett Keratoconus</u></b>
<b><u>DCM</u></b>	<b><u>111872</u></b>	<b><u>Barrett Rx</u></b>
<b><u>DCM</u></b>	<b><u>111873</u></b>	<b><u>EVO</u></b>
<b><u>DCM</u></b>	<b><u>111874</u></b>	<b><u>Shammas No-History</u></b>
<b><u>DCM</u></b>	<b><u>111875</u></b>	<b><u>Camellin-Calossi</u></b>
<b><u>DCM</u></b>	<b><u>111876</u></b>	<b><u>Hill RBF 3.0</u></b>
<b><u>DCM</u></b>	<b><u>111877</u></b>	<b><u>PEARL-DGS</u></b>

In PS3.16, Annex D add to Table D-1

Code Value	Code Meaning	Definition	Notes
...	...	...	...
<b><u>111868</u></b>	<b><u>Kane</u></b>	<p><b><u>The Kane intraocular lens calculation formula.</u></b></p> <p><b><u>Connell BJ, Kane JX. Comparison of the Kane formula with existing formulas for intraocular lens power selection. BMJ Open Ophthalmol. 2019 Apr 1;4(1):e000251. doi: 10.1136/bmjophth-2018-000251. PMID: 31179396; PMCID: PMC6528763.</u></b></p>	
<b><u>111869</u></b>	<b><u>Kane Toric</u></b>	<p><b><u>The Kane Toric intraocular lens calculation formula.</u></b></p> <p><b><u>Kane JX, Connell B. A Comparison of the Accuracy of 6 Modern Toric Intraocular Lens Formulas. Ophthalmology. 2020 Nov;127(11):1472-1486. doi: 10.1016/j.ophtha.2020.04.039. Epub 2020 May 1. PMID: 32371252.</u></b></p>	
<b><u>111870</u></b>	<b><u>Kane Keratoconus</u></b>	<p><b><u>The Kane Keratoconus intraocular lens calculation formula.</u></b></p> <p><b><u>Kane JX, Connell B, Yip H, McAlister JC, Beckingsale P, Snibson GR, Chan E. Accuracy of Intraocular Lens Power Formulas Modified for Patients with Keratoconus. Ophthalmology. 2020 Aug;127(8):1037-1042. doi: 10.1016/j.ophtha.2020.02.008. Epub 2020 Apr 9. PMID: 32279887.</u></b></p>	

Code Value	Code Meaning	Definition	Notes
<u>111871</u>	<u>Barrett Keratoconus</u>	<p><u>The Barrett Keratoconus intraocular lens calculation formula.</u></p> <p><u>Ton, Yokrat MD; Barrett, Graham D. MD, FRANZCO; Kleinmann, Guy MD; Levy, Adi MHA; Assia, Ehud I. MD. Toric intraocular lens power calculation in cataract patients with keratoconus. Journal of Cataract &amp; Refractive Surgery 47(11):p 1389-1397, November 2021.   doi: 10.1097/j.jcrs.0000000000000638</u></p>	
<u>111872</u>	<u>Barrett Rx</u>	<p><u>The Barrett Rx intraocular lens calculation formula.</u></p> <p><u>Barrett GD. The Barrett Rx formula: predicting IOL power based on refraction after cataract surgery. Barcelona, Spain: European Society of Cataract &amp; Refractive Surgeons; 2015.</u></p>	
<u>111873</u>	<u>EVO</u>	<p><u>The Emmetropia Verifying Optical (EVO) intraocular lens calculation formula.</u></p> <p><u>Yeo, T.K. (2024). Emmetropia Verifying Optical (EVO) Formula. In: Aramberri, J., Hoffer, K.J., Olsen, T., Savini, G., Shammas, H.J. (eds) Intraocular Lens Calculations. Essentials in Ophthalmology. Springer, Cham. doi:10.1007/978-3-031-50666-6_40</u></p>	
<u>111874</u>	<u>Shammas No-History</u>	<p><u>The Shammas no-history method using Shammas-PL IOL calculation formula.</u></p> <p><u>Shammas HJ, Shammas MC. No-history method of intraocular lens power calculation for cataract surgery after myopic laser in situ keratomileusis. J Cataract Refract Surg. 2007 Jan;33(1):31-6. doi: 10.1016/j.jcrs.2006.08.045. PMID: 17189790.</u></p>	
<u>111875</u>	<u>Camellin-Calossi</u>	<p><u>The Camellin and Calossi IOL calculation formula.</u></p> <p><u>Camellin M, Calossi A. A new formula for intraocular lens power calculation after refractive corneal surgery. J Refract Surg. 2006 Feb;22(2):187-99. doi: 10.3928/1081-597X-20060201-18. PMID: 16523839.</u></p>	
<u>111876</u>	<u>Hill RBF 3.0</u>	<p><u>The Hill Radial Basis Function (RBF) Formula Version 3.0</u></p> <p><u>Hill Radial Basis Function calculator</u></p>	

Code Value	Code Meaning	Definition	Notes
		<a href="https://rbfcalculator.com">https://rbfcalculator.com</a>	
<u>111877</u>	<u>PEARL-DGS</u>	<p><u>The PEARL-DGS IOL calculation formula.</u></p> <p><u>Debellemarie G, Dubois M, Gauvin M, Wallerstein A, Brenner L, Rampat R, Saad A, Gatinel D. The PEARL-DGS formula: the development of an open-source machine learning-based thick IOL calculation formula. Am J Ophthalmol. 2021;232:58–69. <a href="https://doi.org/10.1016/j.ajo.2021.05.004">https://doi.org/10.1016/j.ajo.2021.05.004</a>.</u></p>	