









Clinical Impact Score, A Novel and Clinically Significant Measure of Journal Influence Derived from Commonly Used Medical Reference Citations

Aleksandra G. Florek, MD, ¹ Claudia M. Ricotti, BS, ¹ Cory A. Dunnick, MD, ^{1,2} Jeremy Hugh, MD, ^{1,2} Robert P. Dellavalle, MD, PhD, MSPH^{1,2}

¹Department of Dermatology, University of Colorado Denver School of Medicine, Anschutz Medical Campus, Aurora, CO, USA

²Dermatology Service, Eastern Colorado Health Care System, US Department of Veteran Affairs, Denver, CO, USA

BACKGROUND

 $\textbf{Impact Factor (IF)} = \frac{\text{\# times an article in a particular journal published in the previous 2 yrs is cited in a given year}}{\text{\# of articles published in that journal during those same 2 years}}$

OBJECTIVE

While IF measures the scientific importance of an author's work, it is not a clinically relevant measurement. In this study, we aimed to create a more clinically relevant measurement of a journal's clinical importance by counting citations in select, leading medical reference texts rather than a much higher number of academic journals.

METHODS

In August 2018, we examined citations in the two commonly used dermatology textbooks (Bolognia's Textbook of Dermatology 4th edition and Andrews' Diseases of the Skin 12th edition), and in the most frequently used online medical reference, UpToDate, which when used, has been associated with improved clinical outcomes. The authors reviewed five significant dermatologic diseases: acne, atopic dermatitis, psoriasis, melanoma, and cutaneous T-cell lymphoma (diseases were chosen at random). The number of references from each journal was summed for each chapter.



UpToDate®

Clinical Impact Score (CIS) = the % of citations from each journal averaged across 5 diseases (average among all 5 subjects in both textbooks and in UpToDate)



RESULTS

691 different academic journals were cited. Journal of American Academy of Dermatology, British Journal of Dermatology, JAMA Dermatology, Journal of Investigative Dermatology, and New England Journal of Medicine possessed highest CIS (13.5%, 6.9%, 5.2%, 3.3%, 2.5%, respectively).

Journal Name	Acne	Atopic Dermatitis	Psoriasis	CTCL	Melanoma	Clinical Impact Score	Rank	Impact Factor (IF)
1. J Am Acad Derm	16.20%	11.47%	20.53%	12.20%	7.07%	13.49%	#1	6.898
2. Br J Dermatol	8.33%	10.00%	8.90%	5.70%	1.37%	6.86%	#2	6.129
3. JAMA Derm	9.17%	2.10%	4.73%	6.07%	3.77%	5.17%	#3	8.107
4. JID	5.00%	4.40%	3.13%	2.80%	1.13%	3.29%	#4	6.448
5. JEADV	4.73%	2.50%	4.60%	0.37%	0.27%	2.49%	#5	4.287
6. J Clin Oncol	0.00%	0.00%	0.00%	5.17%	5.23%	2.08%	#6	26.303
7. J Drugs Dermatol	1.20%	0.63%	7.83%	0.07%	0.00%	1.95%	#7	1.954
8. NEJM	1.07%	1.83%	2.27%	0.60%	3.40%	1.83%	#8	79.258
9. Blood	0.00%	0.00%	0.00%	8.83%	0.03%	1.77%	#9	13.164
10. J Allergy Clin Immunol	0.00%	7.37%	0.03%	0.00%	0.00%	1.48%	#10	12.485

CONCLUSIONS

CIS is a more clinically relevant measure of journal influence than the IF and provides a measure that medical journals can use to monitor their influence on clinical practice and decision making. CIS also measures impact over a longer time frame (1890-2018), so may not change quickly to short term changes in readership.