#### **Dermatology Reports**

# Application of ChatGPT as a content generation tool in continuing medical education: acne as a test topic

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#### SUPPLEMENTARY MATERIAL

Supplementary Table 1. Median values of evaluators' judgments of the questionnaire answers, in total and by specific domain.

Questions			Domain			Total	Agreement (95% CI)*
	Quality	Readability	Accuracy	Thoroughness	Consistency		
Q1. Can the use of cosmetics influence the appearance of acne?	4 (4-5)	5 (4-5)	4 (4-5)	4 (4-5)	4 (4-5)	4 (4-5)	0.93 (0.93, 0.93)
Q2. Can diet influence the appearance and severity of acne?	4 (3-4)	4 (3-4)	3 (3-3)	3 (3-4)	2 (2-3)	3 (3-4)	0.64 (0.51, 0.77)
Q3. When and how to start an acne treatment?	5 (4-5)	5 (5-5)	5 (4-5)	5 (5-5)	4 (4-5)	5 (4-5)	0.94 (0.92, 0.97)
Q4. Is it always necessary to start an acne treatment?	4 (4-5)	5 (4-5)	5 (4-5)	4 (4-5)	NA**	4.5 (4-5)	0.93 (0.93, 0.93)
Q5. In mild-to-moderate acne which treatment regimen to adopt?	4 (4-5)	5 (5-5)	5 (4-5)	5 (4-5)	4 (4-5)	5 (4-5)	0.88 (0.77, 0.99)
Q6. In moderate-severe acne which treatment regimen to adopt?	4 (4-5)	5 (5-5)	4 (4-5)	5 (4-5)	4 (4-5)	5 (4-5)	0.88 (0.78, 0.99)
Q7. Are there gender aspects to consider in managing acne? If yes, which ones?	4 (4-5)	4 (4-5)	4 (4-5)	4 (4-5)	5 (4-5)	4 (4-5)	0.84 (0.73, 0.96)
Q8. Are there physical acne therapies? If so, how should they be	4 (3-4)	4 (4-5)	3 (2-4)	4 (3-5)	2 (2-3)	3 (2-4)	0.47 (0.14, 0.79)
included in the therapeutic program?							
Q9. Does photodynamic therapy have an indication? If so, how should it	5 (4-5)	5 (5-5)	5 (5-5)	5 (5-5)	4 (3-5)	5 (4-5)	0.84 (0.70, 0.97)
be used (times and ways)?							
Q10. Is exposure to blue light helpful?	5 (4-5)	5 (4-5)	5 (3-5)	5 (3-5)	NA**	5 (3-5)	0.75 (0.70, 0.80)
Q11. How to deal with sun exposure in case of acne?	5 (4-5)	5 (4-5)	5 (4-5)	5 (4-5)	NA**	5 (4-5)	0.90 (0.80, 1.00)
Q12. Is professional extraction of comedones useful?	5 (4-5)	4 (4-5)	4 (4-4)	5 (4-5)	NA**	4 (4-5)	0.91 (0.86, 0.96)
Q13. What about the role of hormonal therapies?	5 (4-5)	5 (4-5)	5 (4-5)	5 (4-5)	4 (4-4)	5 (4-5)	0.81 (0.62, 1.00)

	5 (4.5)	5 (4.5)	5 (4.5)	5 (4.5)	4 (4.5)	5 (4.5)	0.04 (0.74, 0.05)
Q14. What about the use of systemic and intralesional steroids?	5 (4-5)	5 (4-5)	5 (4-5)	5 (4-5)	4 (4-5)	5 (4-5)	0.84 (0.74, 0.95)
Q15. Can psychological support be useful in patients with acne? If yes,	4 (4-5)	5 (4-5)	5 (4-5)	5 (4-5)	4 (4-5)	5 (4-5)	0.93 (0.93, 0.93)
in which cases?							
Q16. How to evaluate the response to acne treatment?	5 (3-5)	4 (4-5)	4 (3-5)	4 (3-5)	4 (4-5)	4 (3-5)	0.66 (0.45, 0.88)
Q17. How long should acne treatment be continued?	4 (4-5)	5 (4-5)	4 (4-4)	4 (4-5)	4 (4-4)	4 (4-5)	0.90 (0.86, 0.95)
Q18. Are there reasons to propose long-term maintenance treatment	4 (4-5)	4 (4-5)	4 (4-5)	4 (4-5)	4 (3-5)	4 (4-5)	0.74 (0.46, 1.00)
once a satisfactory therapeutic response has been obtained?							
Q19. What are the main side effects of topical acne treatments?	5 (4-5)	5 (5-5)	5 (4-5)	5 (5-5)	5 (4-5)	5 (4-5)	0.84 (0.74, 0.95)
Q20. What are the main side effects of systemic acne treatments?	5 (4-5)	5 (4-5)	5 (4-5)	5 (4-5)	5 (5-5)	5 (4-5)	0.86 (0.74, 0.98)
Q21. Are there permanent sequelae of acne? If yes, which ones? If yes,	5 (5-5)	5 (5-5)	5 (4-5)	5 (5-5)	4 (4-5)	5 (4-5)	0.90 (0.80, 1.00)
how to prevent them?							
Q22. Is there a role for lasers in the management of acne and its	4 (4-5)	5 (4-5)	4 (3-4)	4 (4-5)	4 (4-4)	4 (4-5)	0.81 (0.59, 1.00)
outcomes?							
Q23. Is there a role for peels in the management of acne and its	4 (4-5)	5 (4-5)	4 (3-5)	5 (4-5)	4 (3-4)	4 (4-5)	0.78 (0.65, 0.91)
outcomes?							
Total	4 (4-5)	5 (4-5)	4 (4-5)	5 (4-5)	4 (4-5)	4 (4-5)	-
1=Very poor	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0%)	0 (0%)	-
2=Poor	1 (0.9%)	1 (0.9%)	4 (3.5%)	2 (1.7%)	9 (9.5%)	17 (3.1%)	
3=Acceptable	13 (11.3%)	5 (4.3%)	24 (20.9%)	15 (13.0%)	13 (13.7%)	70 (12.6%)	
4=Good	45 (39.1%)	41 (35.7%)	33 (28.7%)	35 (30.4%)	39 (41.1%)	193 (34.8%)	
5=Very good (N,%)	56 (48.7%)	68 (59.1%)	54 (47.0%)	63 (54.8%)	34 (35.8%)	275 (49.5%)	

4 (4-5)	5 (4-5)	4 (4-5)	5 (4-5)	4 (4-5)	4 (4-5)	-
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
0.4%	0.4%	2.4%	1.6%	8.9%	2.6%	
12.2%	4.3%	20.4%	12.9%	10.2%	12.0%	
39.2%	36.1%	30.2%	31.4%	42.6%	35.8%	
48.2%	59.2%	47.1%	54.1%	38.3%	49.6%	
0.84 (0.79,	0.90 (0.86,	0.75 (0.68,	0.82 (0.76,	0.78 (0.68,	0.82 (0.79,	-
0.89)	0.94)	0.82)	0.88)	0.87)	0.85)	
	0.0% 0.4% 12.2% 39.2% 48.2% 0.84 (0.79,	0.0%     0.0%       0.4%     0.4%       12.2%     4.3%       39.2%     36.1%       48.2%     59.2%       0.84 (0.79,     0.90 (0.86,	0.0%     0.0%       0.4%     0.4%       12.2%     4.3%       39.2%     36.1%       48.2%     59.2%       47.1%       0.84 (0.79,     0.90 (0.86,       0.75 (0.68,	0.0%     0.0%     0.0%       0.4%     0.4%     2.4%     1.6%       12.2%     4.3%     20.4%     12.9%       39.2%     36.1%     30.2%     31.4%       48.2%     59.2%     47.1%     54.1%       0.84 (0.79,     0.90 (0.86,     0.75 (0.68,     0.82 (0.76,	0.0%         0.0%         0.0%         0.0%           0.4%         0.4%         2.4%         1.6%         8.9%           12.2%         4.3%         20.4%         12.9%         10.2%           39.2%         36.1%         30.2%         31.4%         42.6%           48.2%         59.2%         47.1%         54.1%         38.3%           0.84 (0.79,         0.90 (0.86,         0.75 (0.68,         0.82 (0.76,         0.78 (0.68,	0.0%         0.0%         0.0%         0.0%         0.0%           0.4%         0.4%         2.4%         1.6%         8.9%         2.6%           12.2%         4.3%         20.4%         12.9%         10.2%         12.0%           39.2%         36.1%         30.2%         31.4%         42.6%         35.8%           48.2%         59.2%         47.1%         54.1%         38.3%         49.6%           0.84 (0.79,         0.90 (0.86,         0.75 (0.68,         0.82 (0.76,         0.78 (0.68,         0.82 (0.79,

CI, confidence interval; NA, not assessable; medians with interquartile ranges are reported unless otherwise specified; \*Gwet's AC2 with quadratic weights; \*\*not mentioned in guidelines.

**Supplementary Table 2.** Numbers and percentages of overall positive evaluators' judgments of the questionnaire references provided for each answer, in total, and by specific domain. References identified as ChatGPT hallucinations were excluded from assessment. The numbers and percentages of hallucinations over the total references provided are also reported.

Questions	Domain			Total	Agreement	Hallucinations	
	Pertinence	Relevance	Update		(95% CI)*		
Q1. Can the use of cosmetics influence the appearance of acne?	10/10 (100.0%)	8/10 (80.0%)	3/10 (30.0%)	21/30 (70.0%)	0.54 (-0.13,	1/3 (33.3%)	
					1.00)		
Q2. Can diet influence the appearance and severity of acne?	15/15 (100.0%)	14/15 (93.3%)	13/15 (86.7%)	42/45 (93.3%)	0.87 (0.65, 1.00)	0/3 (0.0%)	
Q3. When and how to start an acne treatment?	15/15 (100.0%)	15/15 (100.0%)	12/15 (80.0%)	42/45 (93.3%)	0.85 (0.65, 1.00)	0/3 (0.0%)	
Q4. Is it always necessary to start an acne treatment?	9/10 (90.0%)	9/10 (90.0%)	8/10 (80.0%)	26/30 (86.7%)	0.65 (0.34, 0.97)	1/3 (33.3%)	
Q5. In mild-to-moderate acne which treatment regimen to adopt?	5/5 (100.0%)	5/5 (100.0%)	4/5 (80.0%)	14/15 (93.3%)	0.85 (0.45, 1.00)	2/3 (66.7%)	
Q6. In moderate-severe acne which treatment regimen to adopt?	10/10 (100.0%)	10/10 (100.0%)	9/10 (90.0%)	29/30 (96.7%)	0.93 (0.75, 1.00)	1/3 (33.3%)	
Q7. Are there gender aspects to consider in managing acne? If yes, which ones?	10/10 (100.0%)	10/10 (100.0%)	6/10 (60.0%)	26/30 (86.7%)	0.78 (0.37, 1.00)	1/3 (33.3%)	
Q8. Are there physical acne therapies? If so, how should they be included in the	6/10 (60.0%)	6/10 (60.0%)	8/10 (80.0%)	20/30 (66.7%)	0.04 (-0.25,	1/3 (33.3%)	
therapeutic program?					0.33)		
Q9. Does photodynamic therapy have an indication? If so, how should it be used	15/15 (100.0%)	13/15 (86.7%)	6/15 (40.0%)	34/45 (75.6%)	0.54 (0.04, 1.00)	0/3 (0.0%)	
(times and ways)?							
Q10 Is exposure to blue light helpful?	13/15 (86.7%)	14/15 (93.3%)	6/15 (40.0%)	33/45 (73.3%)	0.49 (-0.06,	0/3 (0.0%)	
					1.00)		
Q11. How to deal with sun exposure in case of acne?	9/10 (90.0%)	10/10 (100.0%)	8/10 (80.0%)	27/30 (90.0%)	0.76 (0.46, 1.00)	1/3 (33.3%)	

Q12. Is professional extraction of comedones useful?	5/5 (100.0%)	4/5 (80.0%)	1/5 (20.0%)	10/15 (66.7%)	0.52 (-0.29,	2/3 (66.7%)
( P	(200001)	(******)	(2000.5)	20.22 (00)	, , ,	(****, ***)
					1.00)	
Q13. What about the role of hormonal therapies?	10/10 (100.0%)	9/10 (90.0%)	6/10 (60.0%)	25/30 (83.3%)	0.68 (0.21, 1.00)	1/3 (33.3%)
Q14. What about the use of systemic and intralesional steroids?	9/10 (90.0%)	8/10 (80.0%)	6/10 (60.0%)	23/30 (76.7%)	0.48 (-0.1, 1.00)	1/3 (33.3%)
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Q15. Can psychological support be useful in patients with acne? If yes, in which	15/15 (100.0%)	14/15 (93.3%)	9/15 (60.0%)	38/45 (84.4%)	0.76 (0.39, 1.00)	0/3 (0.0%)
cases?						
Q16. How to evaluate the response to acne treatment?	14/15 (93.3%)	14/15 (93.3%)	7/15 (46.7%)	35/45 (77.8%)	0.56 (0.08, 1.00)	0/3 (0.0%)
Q17. How long should acne treatment be continued?	10/10 (100.0%)	10/10 (100.0%)	8/10 (80.0%)	28/30 (93.3%)	0.85 (0.60, 1.00)	1/3 (33.3%)
Q18. Are there reasons to propose long-term maintenance treatment once a	4/5 (80.0%)	5/5 (100.0%)	4/5 (80.0%)	13/15 (86.7%)	0.65 (0.15, 1.00)	2/3 (66.7%)
satisfactory therapeutic response has been obtained?						
Q19. What are the main side effects of topical acne treatments?	9/10 (90.0%)	9/10 (90.0%)	8/10 (80.0%)	26/30 (86.7%)	0.65 (0.34, 0.97)	1/3 (33.3%)
Q20. What are the main side effects of systemic acne treatments?	15/15 (100.0%)	15/15 (100.0%)	11/15 (73.3%)	41/45 (91.1%)	0.87 (0.62, 1.00)	0/3 (0.0%)
Q21. Are there permanent sequelae of acne? If yes, which ones? If yes, how to	13/15 (86.7%)	12/15 (80.0%)	9/15 (60.0%)	34/45 (75.6%)	0.37 (-0.06,	0/3 (0.0%)
prevent them?					0.79)	
Q22. Is there a role for lasers in the management of acne and its outcomes?	10/10 (100.0%)	8/10 (80.0%)	4/10 (40.0%)	22/30 (73.3%)	0.51 (-0.21,	1/3 (33.3%)
					1.00)	
Q23. Is there a role for peels in the management of acne and its outcomes?	15/15 (100.0%)	15/15 (100.0%)	6/15 (40.0%)	36/45 (80.0%)	0.71 (0.25, 1.00)	0/3 (0.0%)
Total	246/260	237/260	162/260	645/780	-	17/135 (12.6%)
	(94.6%)	(91.2%)	(62.3%)	(82.7%)		
Agreement	0.89 (0.83,	0.82 (0.73,	0.14 (0.0, 0.28)	0.67 (0.59,	-	-
(95% CI)*	0.96)	0.91)		0.75)		

C, confidence interval; \*Gwet's AC1.

## **Supplementary Table 3.** Qualitative judgements of evaluators for all answers of the questionnaire.

Questions			Evaluators		
	1	2	3	4	5
Q1. Can the use of cosmetics influence the appearance of acne?	The information provided in this paragraph is too detailed for general practitioners		Chat GPT could be more precise and give more examples of products to avoid. Differently to the NICE guidelines, it does not specify the type of cleansing products to be used, such as synthetic, syndet, or non-alkaline (neutral or slightly acidic to match the skin's pH).		Occlusive agents: petrolatum instead of petroleum
Q2. Can diet influence the appearance and severity of acne?		It is important to emphasize in the conclusions that currently diet does not represent a disease-modifying factor for acne, as highlighted by the NICE guidelines.	Chat GPT's response on dietary advice is better developed than the guidelines, which instead give only general advice		One of the most frequently reported key word is "potential". It is important to limit the idea that some foods are a major player in acne development.  Interestingly, the fact that dietary interventions can be beneficial for some patients and not universally effective is reported
Q3. When and how to start an acne treatment?			The NICE guidelines are more comprehensive in terms of information regarding therapy		The topical retinoid trifarotene is not mentioned. The systemic tetracycline lymecycline is not mentioned. It is not available all over the world (no US) Patient education - side effects: 1)photosensitivity with (add "some") tetracyclines - Lymecycline is not photosensitizing

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				2)topical retinoids (add
				"and benzoyl peroxide").
				Avoidance of known
				exacerbating factors: stress is
				not mentioned
Q4. Is it always necessary to start an acne				Acne-Induced Erythema is not
treatment?				mentioned
Q5. In mild-to-moderate acne which				Acne-Induced Erythema is not
treatment regimen to adopt?				mentioned.
				Avoiding antibiotics as
				monotherapy is not
				sufficiently underlined.
				Systemic therapies: used for a
				limited duration - the correct
				duration is not reported
Q6. In moderate-severe acne which treatment				Oral antibiotics: mode of
regimen to adopt?				action - the anti-inflammatory
l seguinos to unopro				effect doesn't depend
				necessarily on the reduction of
				C. acnes, it can be direct.
				Hormonal therapy - mode of
				action: androgens are active
				also on keratinocytes
				Oral retinoids - isotretinoin:
				iPLEDGE program is active
				only in North America.
				Mucocutaneous dryness is
				dose-dependent (to be
				underlined). The causative
				role of isotretinoin in inducing
				mood alterations is not
				demonstrated
				Procedures: light and laser -
				the reduction of sebum
				production is not fully
				demonstrated.
				Chemical peels may partially
				remove only the very small
	<u> </u>			and superficial open

			comedones. The closed ones do not respond at all. (to be specified)"
Q7. Are there gender aspects to consider in managing acne? If yes, which ones?			
Q8. Are there physical acne therapies? If so, how should they be included in the therapeutic program?	According to the NICE guidelines, the only physical therapies proposed for acne are photodynamic therapy and intralesional corticosteroid injections. The other approaches suggested in Chat GPT's response are not incorrect, but it would be useful to establish an evidence-based hierarchy.		Cryotherapy - almost never used in clinical practice - never mentioned in guidelines. It doesn't deserve mentioning
Q9. Does photodynamic therapy have an indication? If so, how should it be used (times and ways)?			Side effects such as erythema, burning and inflammation are dose dependent and not sufficiently described
Q10. Is exposure to blue light helpful?			Clinical application - mild-to-moderate acne: BPO reduces <i>C. acnes</i> more easily. Procedure protocol: too frequent sessions - difficult to follow. Efficacy and limitations: 50% reduction is not enough considering the complexity of the procedure
Q11. How to deal with sun exposure in case of acne?		Oral retinoids are missing among the medications	Exacerbation potential: overproduction of sebum by prolonged UV exposure is not demonstrated
Q12. Is professional extraction of comedones useful?			

Q13. What about the role of hormonal therapies?  Q14. What about the use of systemic and intralesional steroids?  Q15. Can psychological support be useful in patients with acne? If yes, in which cases?  Q16. How to evaluate the response to acne treatment?		The guidelines and GPT diverge in that the guidelines focus on drug therapy management	COCs: Cyproterone acetate and dienogest are missing The modalities of use are quite far from real-life use  Some details regarding the global assessment scores and the need of a combined physician and patient assessment are not sufficiently specified
Q17. How long should acne treatment be continued?		Chat GPT covered this paragraph more thoroughly than the guidelines, however lacking the management of long-term antibiotic therapy	Six months duration of systemic antibiotics is a UK position – the European position is 3 months isotretinoin duration; 5-9 months is strange. Data to be checked.  The concept of cumulative dose is not supported anymore (Ref: J. Tan).  Definition and duration of maintenance therapy are not fully defined - There are some data on duration of maintenance - available references
Q18. Are there reasons to propose long-term maintenance treatment once a satisfactory therapeutic response has been obtained?		Chat GPT addressed this topic differently to the guidelines as it does not discusses abundantly skin care and pharmacological management	
Q19. What are the main side effects of topical acne treatments?	Some topical treatments mentioned by Chat GPT are not included in the NICE guidelines		Azelaic acid skin irritation: itching is not a typical symptom

Q20. What are the main side effects of systemic acne treatments?				Lymecycline is never mentioned. Clinical relevance and incidence of side effect is not mentioned, though clinically relevant. Details on side effects, for instance regarding corticosteroids would be useful
Q21. Are there permanent sequelae of acne? If yes, which ones? If yes, how to prevent them?			GPT discusses the topic in greater depth than the guidelines	PIH/AIH can't be pink to red!
Q22. Is there a role for lasers in the management of acne and its outcomes?		In the NICE guidelines, the only mention of laser use is related to post-acne scars, not to active lesions		The role of laser on the active phase of acne is really controversial
Q23. Is there a role for peels in the management of acne and its outcomes?	The information provided in this paragraph is too detailed for general practitioners	In the NICE guidelines, the only mention of chemical peels use is related to post-acne scars, not to active lesions	Chat GPT discusses the topic in greater depth than the guidelines	CROSS technique is not mentioned

# **Supplementary Table 4.** Qualitative judgements of evaluators for each reference.

Questions			Evaluator	rs	
	1	2	3	4	5
Q1. Can the use of cosmetics influence the appearance of acne?				There are better references available; these are not updated enough	Reference 1 is very old
Q2. Can diet influence the appearance and severity of acne?					Some recent references are missing
Q3. When and how to start an acne treatment?					
Q4. Is it always necessary to start an acne treatment?			Reference 1 is not so accurate about the necessity of initiating Acne Treatment		More recent and relevant references are available
Q5. In mild-to-moderate acne which treatment regimen to adopt?					
Q6. In moderate-severe acne which treatment regimen to adopt?					Updated references are needed
Q7. Are there gender aspects to consider in managing acne? If yes, which ones?					
Q8. Are there physical acne therapies? If so, how should they be included in the therapeutic program?			References 2 and 3 do not provide detailed information about physical acne treatments		
Q9. Does photodynamic therapy have an indication? If so, how should it be used (times and ways)?					Updated references are needed
Q10. Is exposure to blue light helpful?			In reference 1, the topic is only briefly covered and is not the main focus of the article		Updated references are needed
Q11. How to deal with sun exposure in case of acne?					
Q12. Is professional extraction of comedones useful?					Updated references are needed
Q13. What about the role of hormonal therapies?					Updated references are needed

Q14. What about the use of systemic and intralesional steroids?		
Q15. Can psychological support be useful in patients with acne? If yes, in which cases?		
Q16. How to evaluate the response to acne treatment?	Reference 3 is not so pertinent	All the references are old but refer to specific methods set up at that time
Q17. How long should acne treatment be continued?		Pertinent and relevant references are missing
Q18. Are there reasons to propose long-term maintenance treatment once a satisfactory therapeutic response has been obtained?		
Q19. What are the main side effects of topical acne treatments?	Reference 2 does not sufficiently address adverse reactions to topical treatments	"The European Guidelines on acne treatment - 2016 - EADV - EDF have never been mentioned! Updated references are needed"
Q20. What are the main side effects of systemic acne treatments?		Updated references are needed
Q21. Are there permanent sequelae of acne? If yes, which ones? If yes, how to prevent them?	References 2 and 3 do not sufficiently address the topic	Updated references are needed
Q22. Is there a role for lasers in the management of acne and its outcomes?		Updated references are needed
Q23. Is there a role for peels in the management of acne and its outcomes?		

### **Supplementary Table 5.** Recurrence of the references.

Reference	N (%)
Zaenglein AL, Pathy AL, Schlosser BJ, et al. Guidelines of care for the management of acne vulgaris. J Am Acad Dermatol 2016;74:945-73.e33. DOI: 10.1016/j.jaad.2015.12.037.	10 (14.5%)
Fabbrocini G, Annunziata MC, D'Arco V, et al. Acne scars: pathogenesis, classification and treatment. Dermatol Res Pract 2010;2010:893080. DOI: 10.1155/2010/893080.	3 (4.3%)
Thiboutot DM, Dréno B, Abanmi A, et al. Practical management of acne for clinicians: An international consensus from the Global Alliance to Improve Outcomes in Acne. J Am Acad Dermatol 2018;78(2 Suppl 1):S1-S23.e1. DOI: 10.1016/j.jaad.2017.09.078.	3 (4.3%)
Bhate K, Williams HC. Epidemiology of acne vulgaris. Br J Dermatol 2013;168:474-85. DOI: 10.1111/bjd.12149.	2 (2.9%)
Eichenfield LF, Krakowski AC, Piggott C, et al; American Acne and Rosacea Society. Evidence-based recommendations for the diagnosis and treatment of pediatric acne. Pediatrics 2013;131 (Suppl 3):S163-86. DOI: 10.1542/peds.2013-0490B.	2 (2.9%)
Tan JK, Bhate K. A global perspective on the epidemiology of acne. Br J Dermatol 2015;172 (Suppl 1):3-12. DOI: 10.1111/bjd.13462.	2 (2.9%)
Walsh TR, Efthimiou J, Dréno B. Systematic review of antibiotic resistance in acne: an increasing topical and oral threat. Lancet Infect Dis 2016;16:e23-33. DOI: 10.1016/S1473-3099(15)00527-7.	2 (2.9%)
Yentzer BA, Hick J, Reese EL, Uhas A, Feldman SR, Balkrishnan R. Acne vulgaris in the United States: a descriptive epidemiology. Cutis 2010;86:94-9.	2 (2.9%)

#### **Supplementary Table 6.** Internal reproducibility of the references.

		Answers	References*	Matching
				(references vs.
				answers)
		N (%)	N (%)	N (%)
Sessions 1-2 (N=23)	СО	2 (8.7%)	1 (4.3%)	1 (50.0%)
	PO	19 (82.6%)	15 (65.2%)	13 (68.4%)
	NO	2 (8.7%)	7 (30.4%)	0 (0.0%)
Sessions 1-3 (N=23)	CO	10 (43.5%)	1 (4.3%)	0 (0.0%)
	PO	12 (52.2%)	14 (60.9%)	6 (50.0%)
	NO	1 (4.3%)	8 (34.8%)	0 (0.0%)
Total 1-2-3 (N=46)	CO	12 (26.1%)	2 (4.3%)	1 (8.3%)
	PO	31 (67.4%)	29 (63.0%)	19 (61.3%)
	NO	3 (6.5%)	15 (32.6%)	0 (0.0%)

CO, complete overlap; NO, no overlap, PO, partial overlap; \*for references: AO, PO, and NO mean, respectively 3, 1-2, and 0 references reproduced over a total of 3 references per question. Hallucinations were included in this analysis.

## **Supplementary Table 7.** Unexpected or unpredictable events during query sessions.

Que	stion	Unexpected or unpredictable events
11	How to deal with sun	Session 3: line interruption and prompt for bibliographic records
	exposure in case of acne?	immediately resubmitted
18	Are there reasons to	Session 1: when asked to indicate 3 bibliographic references referring
	propose long-term	to this question ChatGPT independently drafted two versions of
	maintenance treatment once	bibliography, each with 3 entries, asking the operator to choose one
	a satisfactory therapeutic	among the two proposed versions. The operator chose the first one in
	response has been	order to proceed with the query
	obtained?	
The	majority of questions (N=52)	ChatGPT provided 3-4 bibliographic references already at the end of
in a	ll query sessions	each answer, before they were explicitly requested. However, ChatGPT
		was asked to provide 3 references separately following the predefined
		methodology. The references indicated by ChatGPT at the end of the
		answers were not considered for the bibliographic analyses