

International alliance and AGREEMENT of 45 rapid guidelines on management of critical care patients with COVID-19

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On behalf of **COVID-19 Rapid Guidelines Review
Collaborative Group (COVID-RGCG)**

An Oral Presentation for COVID-END Partners' Meeting



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Question and methods

- *Overarching*: ‘What is the quality of the Rapid Guidelines (RGs) for management of people with COVID-19 according to the criteria of the AGREE II Instrument? (*PROSPERO April 2020*).
- Systematic review of RGs focused on COVID-19 (Critical Care).
- Search 1st November 2019-July 31st 2020.
- Medline (OVID), CINAHL, Embase, CNKI, CBM), and WanFang Data.
- Grey Literature Key organizations: WHO, PAHO, G-I-N, Other National CPG websites.
- Articles’ selection and data extraction in duplicate.
- Included RGs were assessed with AGREE II instrument, using ‘MY AGREE-PLUS’ platform.
- Every RG was assessed by 2 reviewers.

Results

- General COVID-19 RGs were retrieved (CPG not PHG).
- We categorized them by clinical specialties (Critical care, ambulatory care, pediatrics, pregnancy and perinatal care, etc.)
- **45 CPGs** were focused on **Critical care** management were included

- **International (9)**



- **National (36)**

- China (10)
- UK (7)
- Italy (7)
- USA (5)
- Saudi Arabia (3)
- France (1)
- Canada (1)
- Spain` (1)
- India (1)

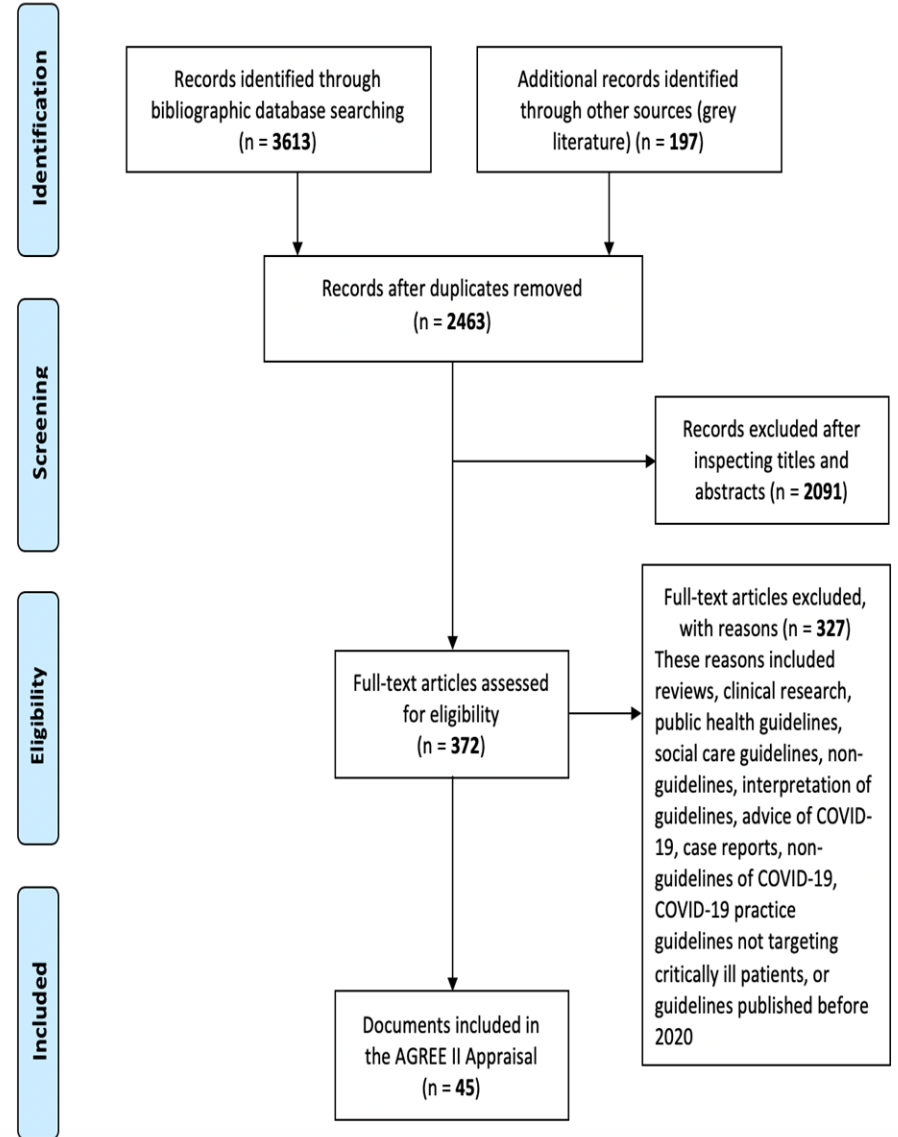


Table 3. AGREE II Standardized Domain Scores for the 45 included rapid guidelines for critically ill patients with COVID-19²³⁻⁶⁸

RG ID/ AGREE II Domain Scores	Domain 1. (Items 1-3)	Domain 2. (Items 4-6)	Domain 3. (Items 7-14)	Domain 4. (Items 15-17)	Domain 5. (Items 18-21)	Domain 6. (Items 22, 23)	Average score per RG (all domains)	OA 1	OA 2
1. Zhao ²³	36%	6%	20%	61%	21%	0%	24%	33%	Y (n=0); YWM (n=2); N (n=0)
2. Zeng ²⁴	64%	64%	24%	58%	17%	29%	43%	50%	Y (n=1); YWM (n=1); N (n=0)
3. Jin ²⁵	94%	64%	46%	78%	42%	13%	60%	75%	Y (n=2); YWM (n=0); N (n=0)
4. NHC-SATCM-1 ²⁶	61%	0%	5%	50%	15%	0%	22%	25%	Y (n=0); YWM (n=2); N (n=0)
5. Zuo ²⁷	47%	28%	22%	69%	6%	0%	29%	25%	Y (n=0); YWM (n=0); N (n=2)
6. NHC-SATCM-2 ²⁸	47%	0%	4%	64%	21%	0%	23%	25%	Y (n=0); YWM (n=2); N (n=0)
7. ITS/AIPO/SIP ²⁹	53%	33%	26%	56%	48%	8%	37%	33%	Y (n=0); YWM (n=1); N (n=1)
8. SIMIT ³⁰	83%	47%	33%	72%	50%	8%	49%	75%	Y (n=1); YWM (n=1); N (n=0)
9. SIAARTI ^{31,32}	78%	31%	35%	83%	25%	17%	45%	50%	Y (n=1); YWM (n=1); N (n=0)
10. Lazzeri ³³	42%	25%	15%	50%	0%	0%	22%	25%	Y (n=0); YWM (n=1); N (n=1)
11. Alhazzani (SCCM) ³⁴	100%	86%	85%	97%	54%	92%	86%	100%	Y (n=2); YWM (n=0); N (n=0)
12. Malhorta ³⁵	47%	25%	16%	72%	21%	88%	45%	25%	Y (n=0); YWM (n=0); N (n=2)
13. Wang ³⁶	69%	53%	6%	44%	4%	83%	43%	17%	Y (n=0); YWM (n=0); N (n=2)
14. He ³⁷	97%	56%	11%	94%	10%	63%	55%	69%	Y (n=0); YWM (n=1); N (n=1)
15. Chandrasekharan ³⁸	44%	22%	16%	67%	19%	50%	36%	33%	Y (n=0); YWM (n=0); N (n=2)
16. Yao ³⁹	89%	36%	26%	78%	21%	50%	50%	50%	Y (n=1); YWM (n=0); N (n=1)
17. Mahmud ⁴⁰	89%	56%	17%	75%	42%	88%	61%	42%	Y (n=0); YWM (n=1); N (n=1)
18. Thomas ⁴¹	72%	42%	26%	69%	33%	92%	56%	38%	Y (n=0); YWM (n=1); N (n=1)
19. Cook ⁴²	92%	58%	26%	86%	77%	83%	70%	58%	Y (n=0); YWM (n=2); N (n=0)
20. SINPE ⁴³	94%	33%	32%	86%	31%	8%	47%	42%	Y (n=1); YWM (n=1); N (n=0)
21. Wang Yali ⁴⁴	56%	6%	8%	75%	10%	0%	26%	33%	Y (n=0); YWM (n=2); N (n=0)
22. Chen ⁴⁵	53%	0%	14%	58%	13%	0%	23%	33%	Y (n=0); YWM (n=2); N (n=0)
23. SINuS-SIAARTI ⁴⁶	92%	47%	43%	78%	35%	8%	51%	67%	Y (n=0); YWM (n=2); N (n=0)
24. PAHO/WHO ⁴⁷	100%	75%	59%	72%	60%	88%	76%	75%	Y (n=1); YWM (n=1); N (n=0)

RG ID/ AGREE II Domain Scores	Domain 1. (Items 1-3)	Domain 2. (Items 4-6)	Domain 3. (Items 7-14)	Domain 4. (Items 15-17)	Domain 5. (Items 18-21)	Domain 6. (Items 22, 23)	Average score per RG (all domains)	OA 1	OA 2
25. Sharma ⁴⁸	92%	56%	30%	92%	50%	100%	70%	75%	Y (n=0); YWM (n=2); N (n=0)
26. Miles ⁴⁹	94%	67%	11%	94%	15%	42%	54%	67%	Y (n=1); YWM (n=1); N (n=0)
27. Flexman ⁵⁰	69%	33%	40%	72%	46%	83%	57%	75%	Y (n=0); YWM (n=2); N (n=0)
28. Coimbra ⁵¹	61%	42%	1%	61%	13%	42%	37%	25%	Y (n=0); YWM (n=0); N (n=2)
29. Matava ⁵²	47%	50%	31%	69%	40%	92%	55%	58%	Y (n=0); YWM (n=2); N (n=0)
30. Takhar ⁵³	61%	36%	31%	89%	48%	50%	53%	50%	Y (n=1); YWM (n=1); N (n=0)
31. Cinesi Gómez ⁵⁴	47%	17%	10%	44%	0%	0%	20%	17%	Y (n=0); YWM (n=0); N (n=2)
32. RCPCH ⁵⁵	78%	39%	1%	67%	10%	0%	33%	33%	Y (n=0); YWM (n=1); N (n=1)
33. SA-MOH-21 ⁵⁶	75%	42%	14%	81%	10%	67%	48%	38%	Y (n=0); YWM (n=2); N (n=0)
34. SA-MOH-22 ⁵⁷	61%	33%	4%	67%	21%	58%	41%	26%	Y (n=0); YWM (n=1); N (n=1)
35. Ye ⁵⁸	69%	86%	83%	89%	40%	100%	78%	83%	Y (n=0); YWM (n=2); N (n=0)
36. WHO ⁵⁹	83%	47%	52%	100%	46%	42%	62%	67%	Y (n=1); YWM (n=1); N (n=0)
37. SIGN ⁶⁰	92%	53%	27%	92%	23%	0%	48%	38%	Y (n=0); YWM (n=1); N (n=1)
38. ESC ⁶¹	44%	44%	34%	56%	44%	29%	42%	17%	Y (n=0); YWM (n=1); N (n=1)
39. Rovira ⁶²	72%	42%	6%	89%	23%	75%	51%	58%	Y (n=0); YWM (n=2); N (n=0)
40. FICM-ICS-RCP ⁶³	61%	3%	5%	86%	2%	0%	26%	8%	Y (n=0); YWM (n=0); N (n=2)
41. FICM-ICS ⁶⁴	69%	39%	10%	69%	23%	0%	35%	42%	Y (n=0); YWM (n=2); N (n=0)
42. Edelson ⁶⁵	72%	61%	17%	89%	31%	58%	55%	42%	Y (n=0); YWM (n=2); N (n=0)
43. FADOI ⁶⁶	67%	36%	32%	69%	19%	0%	37%	75%	Y (n=0); YWM (n=2); N (n=0)
44. SFAR ⁶⁷	75%	28%	63%	58%	46%	38%	51%	67%	Y (n=0); YWM (n=2); N (n=0)
45. Alhazzani (SCCS) ⁶⁸	67%	64%	36%	83%	17%	79%	58%	50%	Y (n=0); YWM (n=2); N (n=0)
Average score per domain (all RGs)	70%	40%	26%	74%	28%	41%		Av. 46%	

Rapid signal for quality of RGs: Low quality: Red <40%, Moderate quality: YELLOW 40%-60%, High quality: GREEN >60%

Results Summary

• Average Domain Scores for the 45 RGs

- Domain 1 70%
- Domain 2 40%
- **Domain 3 26%**
- Domain 4 74%
- **Domain 5 28%**
- Domain 6 41%
- OA 1 46%

AGREE II Domains	Freq. Scores (%)
1 Scope and purpose	17/45 >70%= 37.7%
	33/45 >60%= 73.3%
2 Stakeholder involvement	3 /45 >70%= 6.6%
	8 /45 >60%= 17.8%
3 Rigor of development	2 /45 >70%= 4.4%
	3/45 >60 % = 6.7%
4 Clarity of presentation	26 /45 >70%= 57.8%
	37 /45 >60%= 82%
5 Applicability	26 /45 >70%= 57.8%
	37 /45 >60%= 82%
6 Editorial independence	13 /45 >70%= 28.8%
	15 /45 >60%= 33.3%
Overall assessment 1	8 /45 >70%= 17.8%
	12 /45 >60%= 26.7%

Summary

- Most of RGs come from HIC (n=25, 56%) and less international (n=9, 20%).
- A high number of RGs developed in 5 months.
- Most RGs were of low-quality (n=33, 73% with lower cut-off 60%).
- Only 3 RGs had AGREE II Domain 3 score higher than 60% (SSC, Ye, & SFAR). Both SSC & Ye >70%.
- Most of RGs lack enough quality to be recommended for use or adaptation.
- AGREE II is useful in assessing RGs as well as 'conventional' CPGs.

High-quality RGs (OA1, mean >60%)

1. Alhazzani et al, SSC *[D3]*
2. Ye et al *[D3]*
3. Sharma et al
4. WHO
5. PAHO/WHO (Spanish)
6. SFAR (French) *[D3]*

Key therapeutic interventions (> 2 high quality RGs)

General Supportive Care

1. Hemodynamic Support:
 - i. Fluid Therapy
 - ii. Vasoactive Agents
2. Supplemental Oxygen Therapy
3. Extracorporeal Membrane Oxygenation (ECMO)
4. Ventilatory Support:
 - i. Invasive Mechanical Ventilation
5. Pain, Sedation, and Delirium Management in ICU

Specific COVID-19 Therapy

6. Systemic Corticosteroids
7. Empiric Antimicrobials
8. Convalescent Plasma
9. Antiviral Agents (e.g. Remdesivir, Lopinavir/Ritonavir or others)
10. Recombinant interferons (rIFNs): Alone or in combination with antivirals
11. Chloroquine or Hydroxychloroquine
12. Immunomodulatory Drugs

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