

Pilot Attachment Programme in Guangdong Province (Clinical Management Sharing 1)



6 Feb 2024

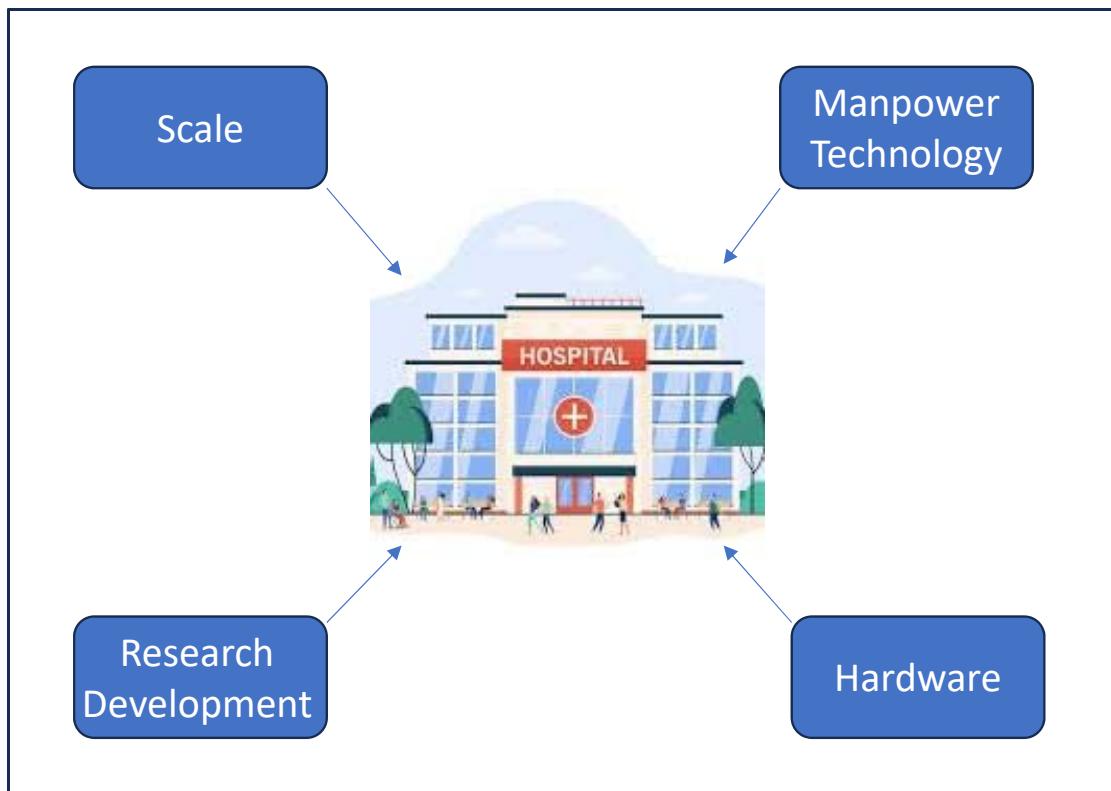
Owen Tsang

Areas of focus

- **Infectious diseases management** and infection control in combating emerging infectious diseases and pandemic
- Operation of laboratories and strategies adopted in relation to emerging infectious diseases and pandemic



Classification of hospitals



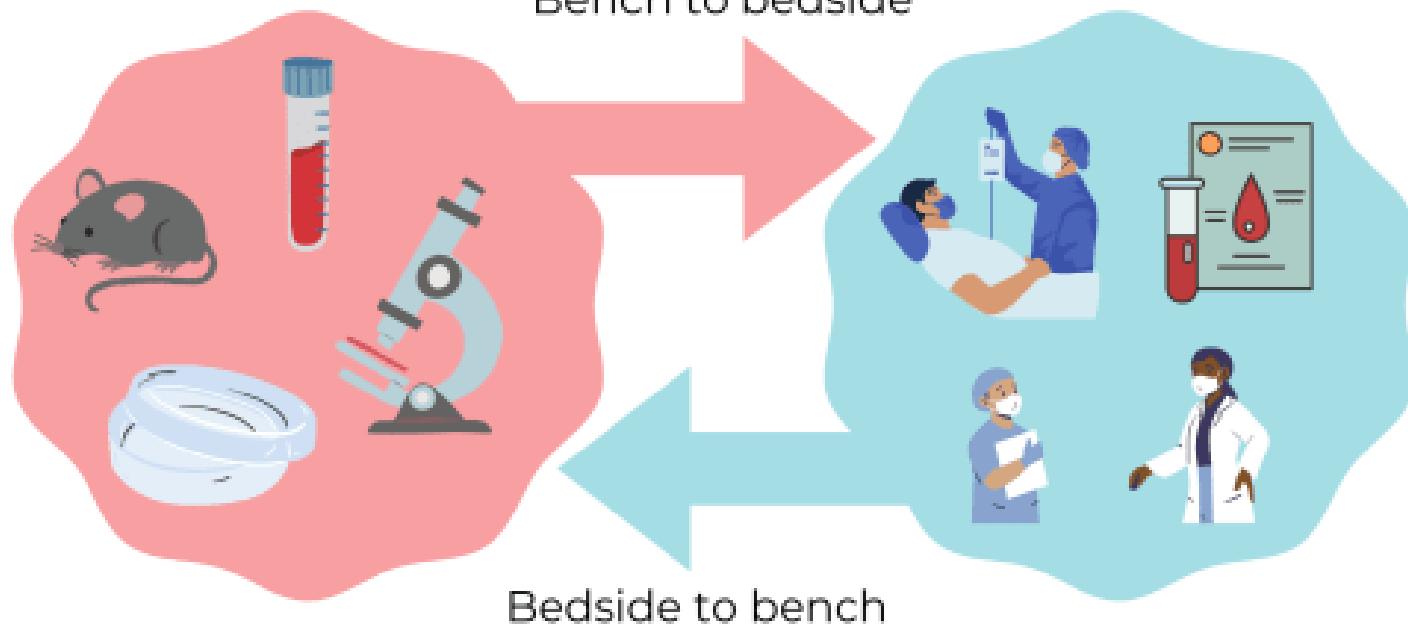
Areas covered

- COVID-19 management
- HIV management
- Infectious disease Management
- TB management
- Chinese medicine
- Public health

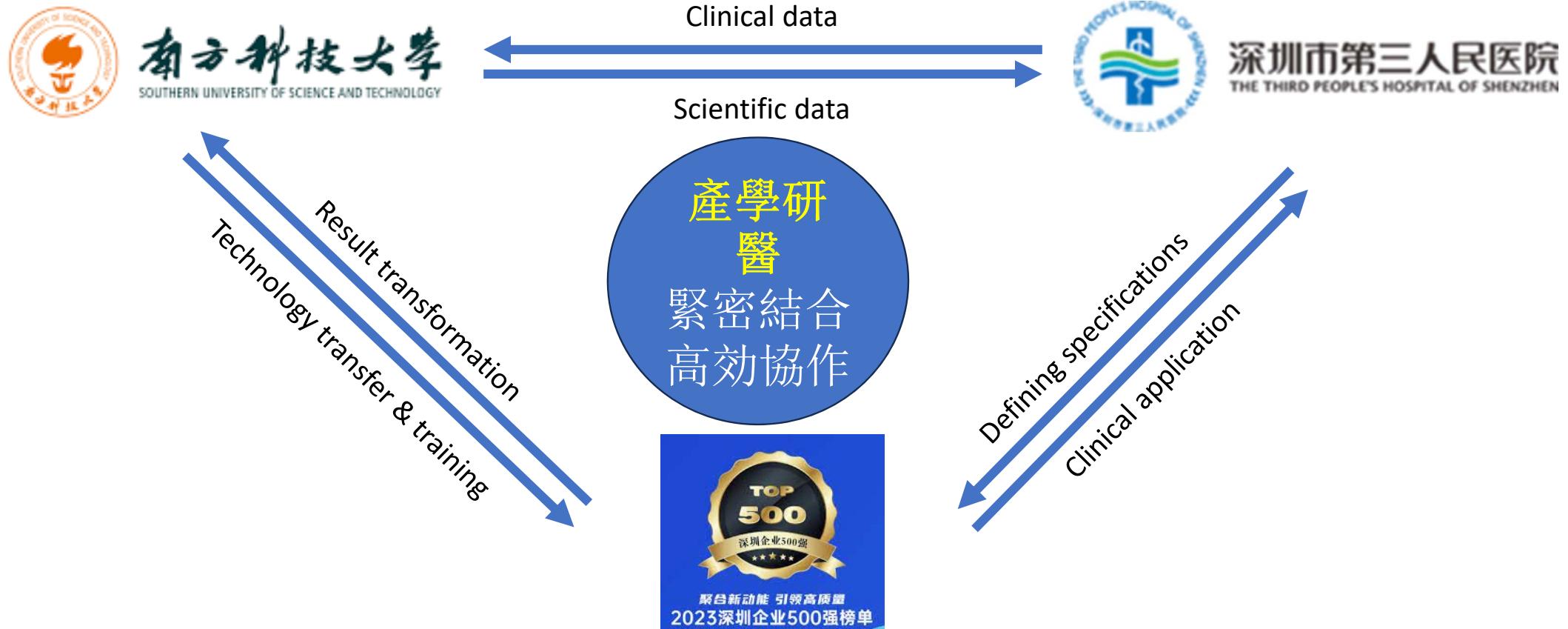
Translational Medicine



Bench to bedside



A close link between basic science, clinical service and industry





深圳市第三人民医院
THE THIRD PEOPLE'S HOSPITAL OF SHENZHEN

COVID-19 management

- **Dec 2021:** Developed the Monoclonal neutralizing antibody ambavir/romisevir combination therapy (known as BRII-196/BRII-198)



Brii Biosciences
Breakthrough innovation & insight
Brii Biosciences Limited
腾盛博药生物科技有限公司
(於開曼群島註冊成立的有限公司)
股份代號：2137

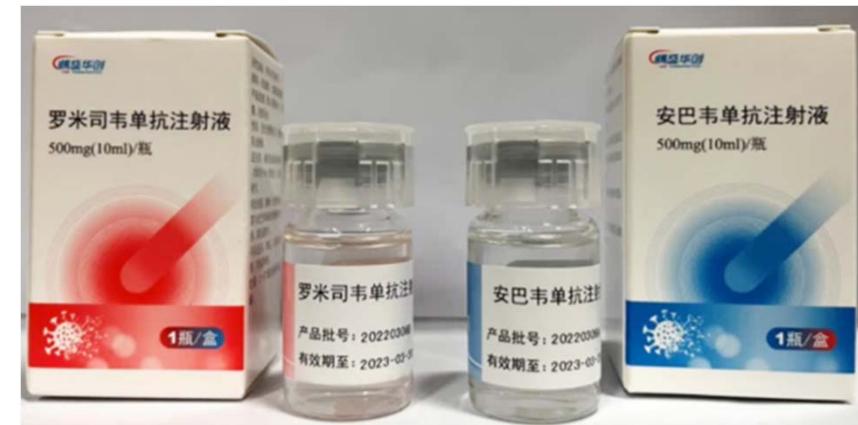
a

	D614G	Alpha	Gamma	Beta	Delta	Omicron
LY-CoV555	0.013	0.008	>10	>10	>10	>10
LY-CoV016	0.032	1.707	>10	>10	0.024	>10
REGN10933	0.005	0.007	0.055	0.098	0.003	>10
REGN10987	0.005	0.003	0.003	0.002	0.005	>10
AZD8895	0.001	0.002	0.012	0.014	0.002	6.860
AZD1061	0.002	0.001	0.002	0.003	0.004	2.178
VIR-7831	0.058	0.080	0.066	0.050	0.073	0.181
BRII-196	0.053	0.031	0.041	0.030	0.042	7.258
DXP-604	0.010	0.007	0.005	0.065	0.016	0.287

IC50 (μ g/mL) 0 5 10



国家药品监督管理局
National Medical Products Administration



COVID-19 management



Protease Inhibitor

Cao B, et al. N Engl J Med.
2024 Jan 18;390(3):230-241.



RDRP polymerase inhibitor (VV116)

Cao Z, et al. N Engl J Med.
2023 Feb 2;388(5):406-417.

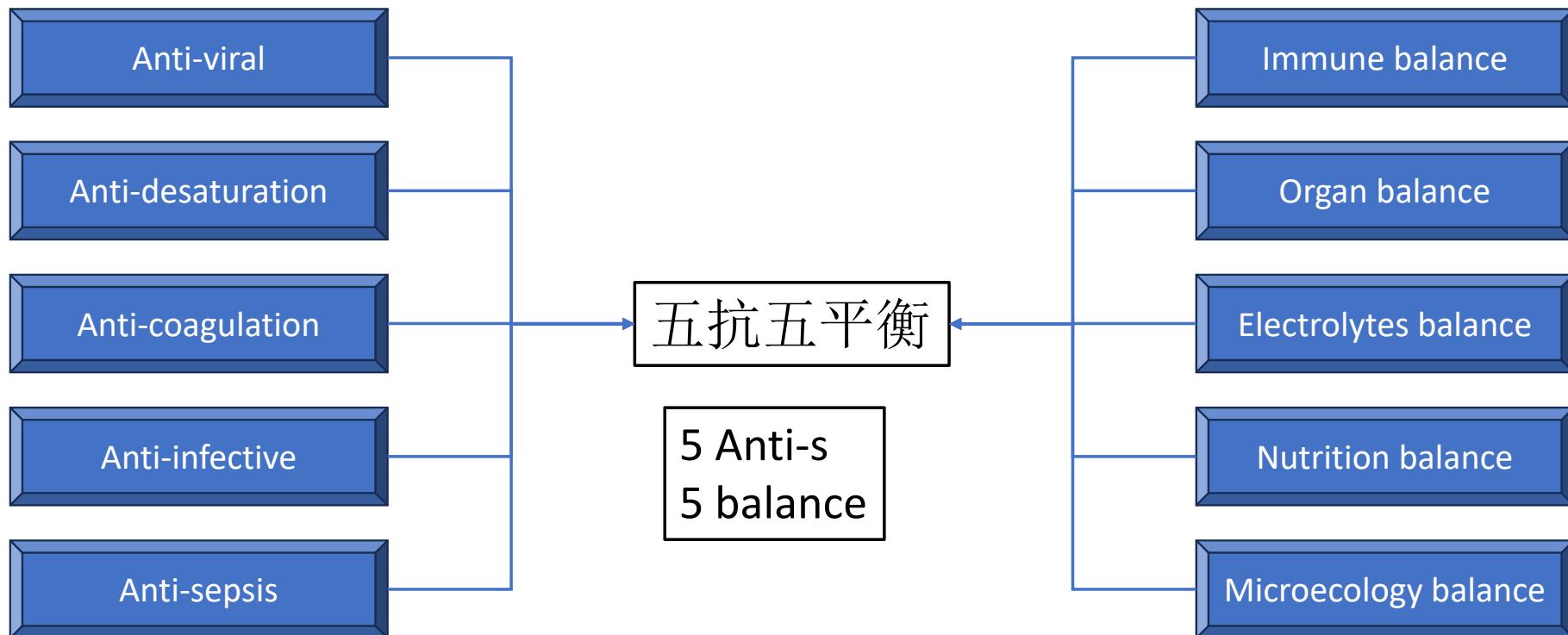


Protease Inhibitor

Zhan Y, et al. EClinicalMedicine.
2023 Dec 14;67:102359.

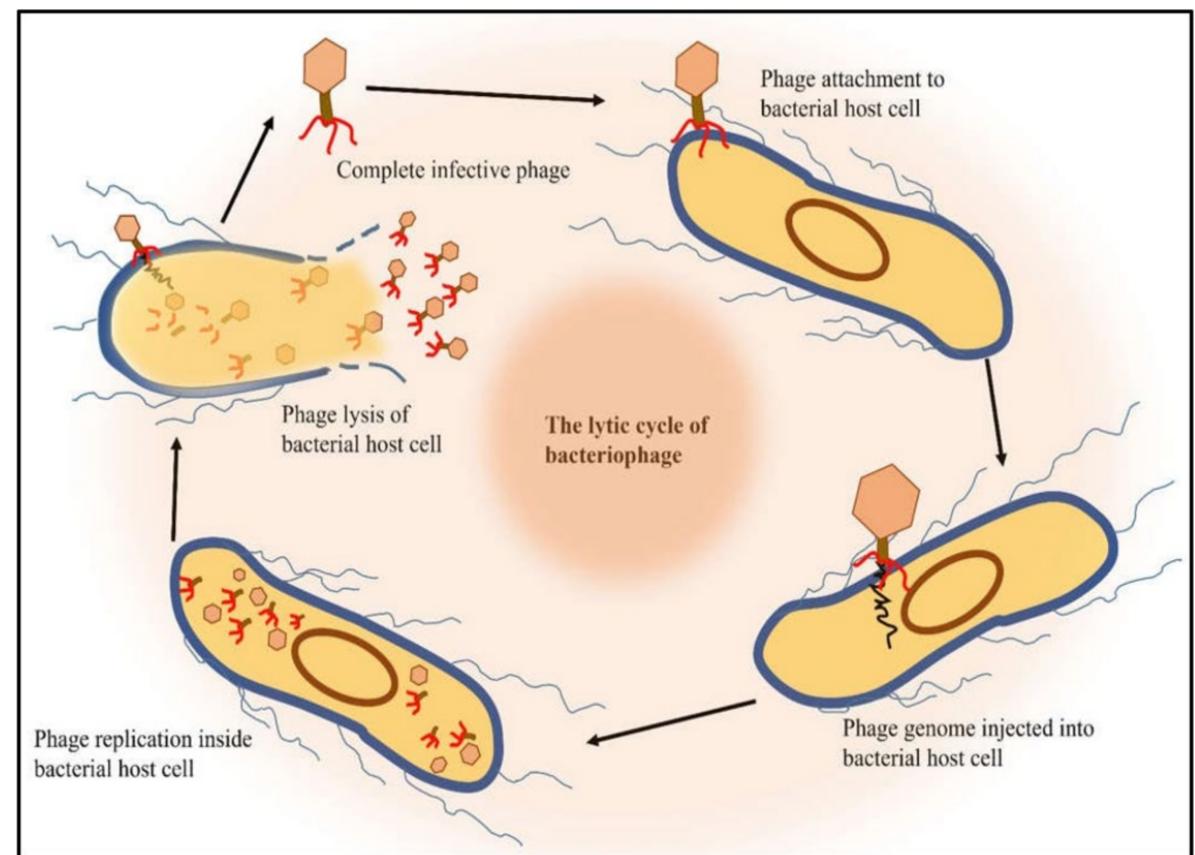
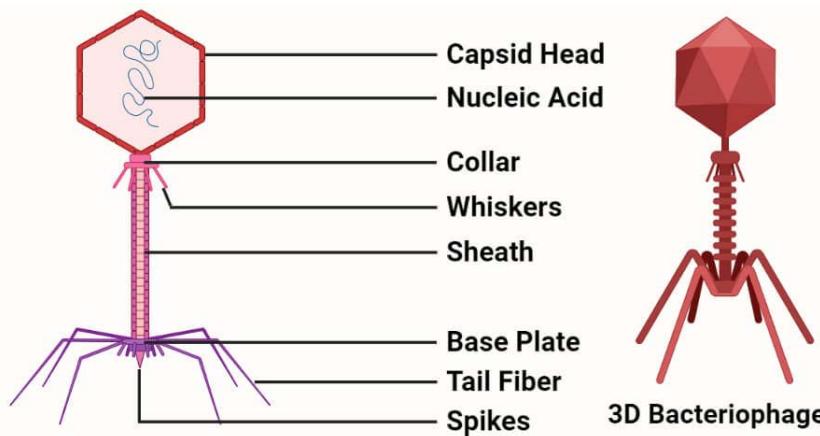


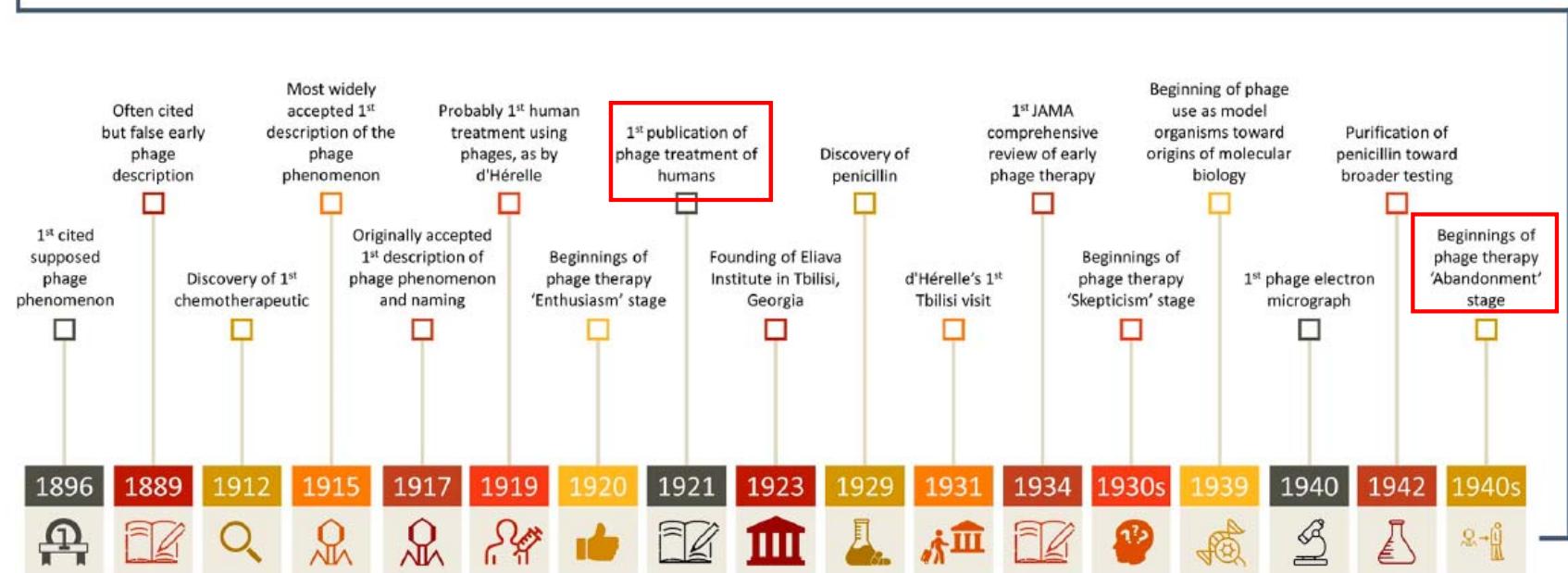
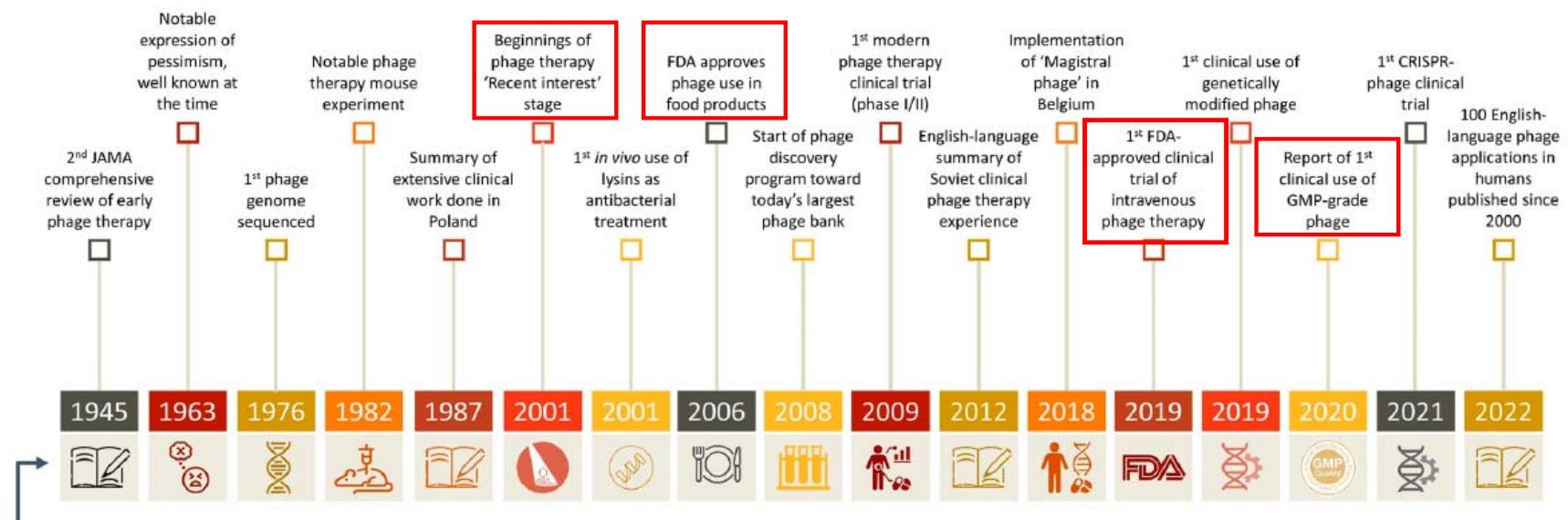
Management of Severe COVID-19 patients



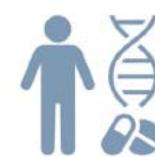
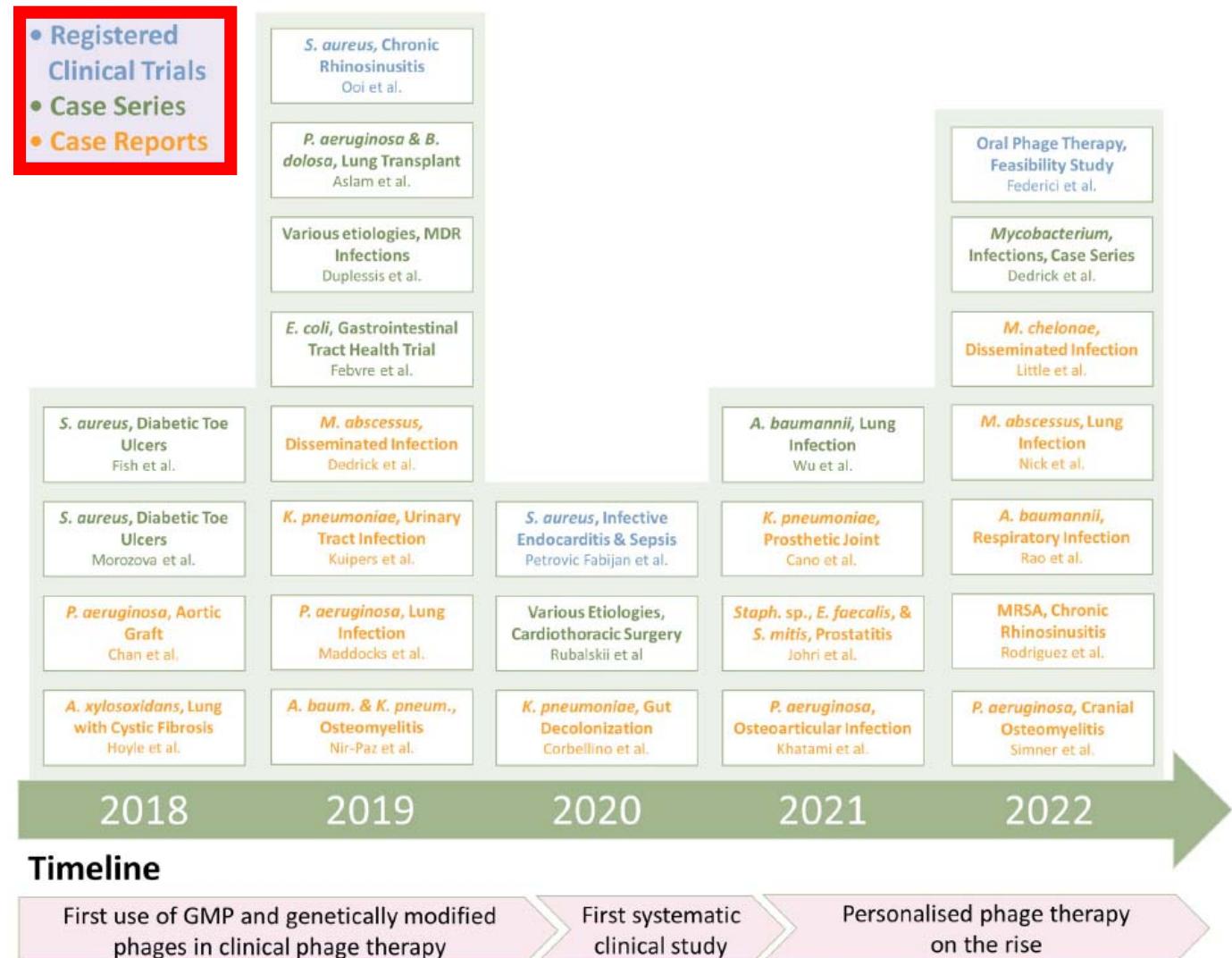
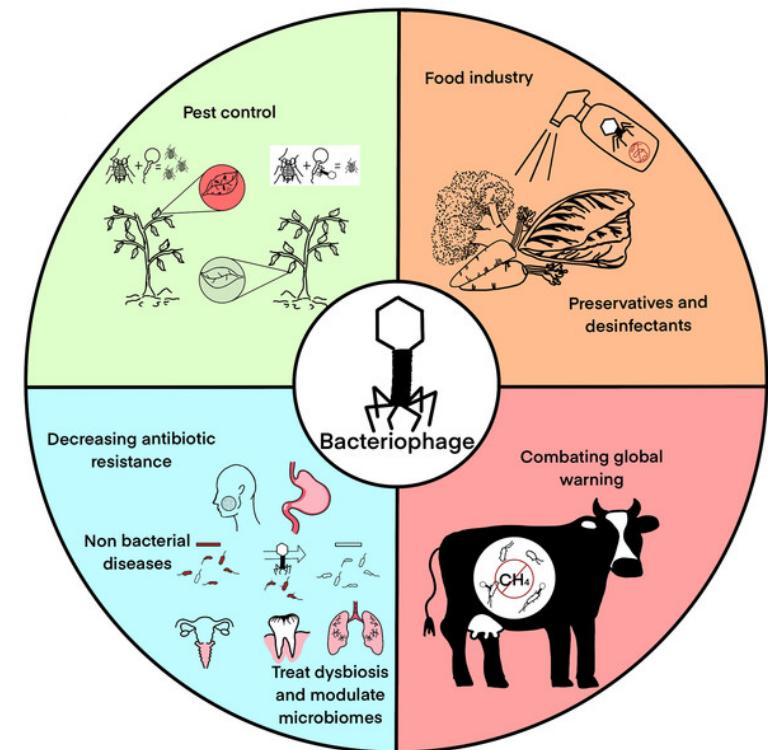
Rapid response to new trend of therapeutics

Phage therapy 噬菌體:
Virus that infects bacteria



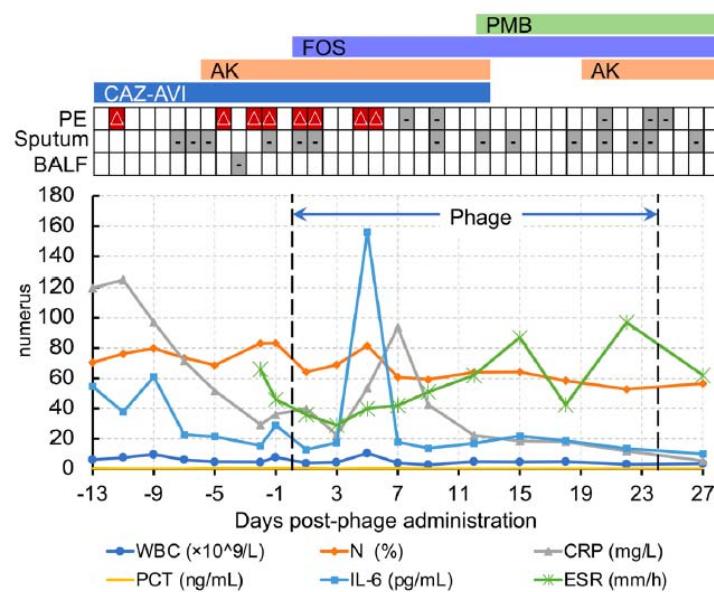


Application

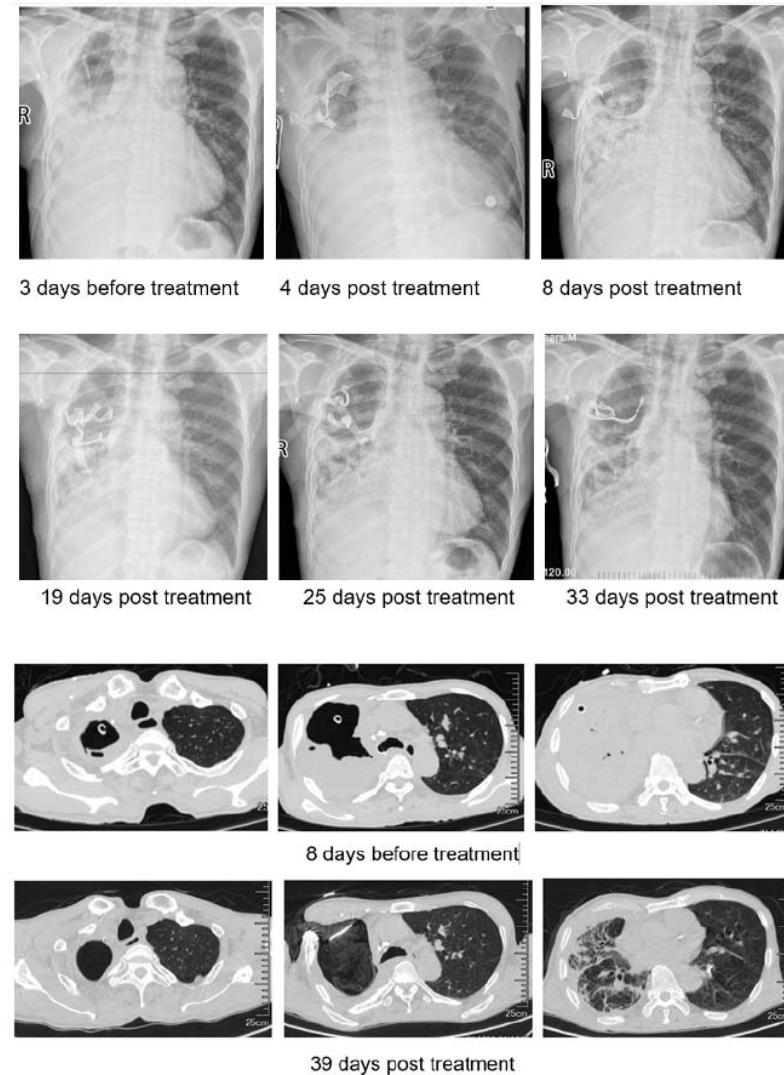


Brief Report

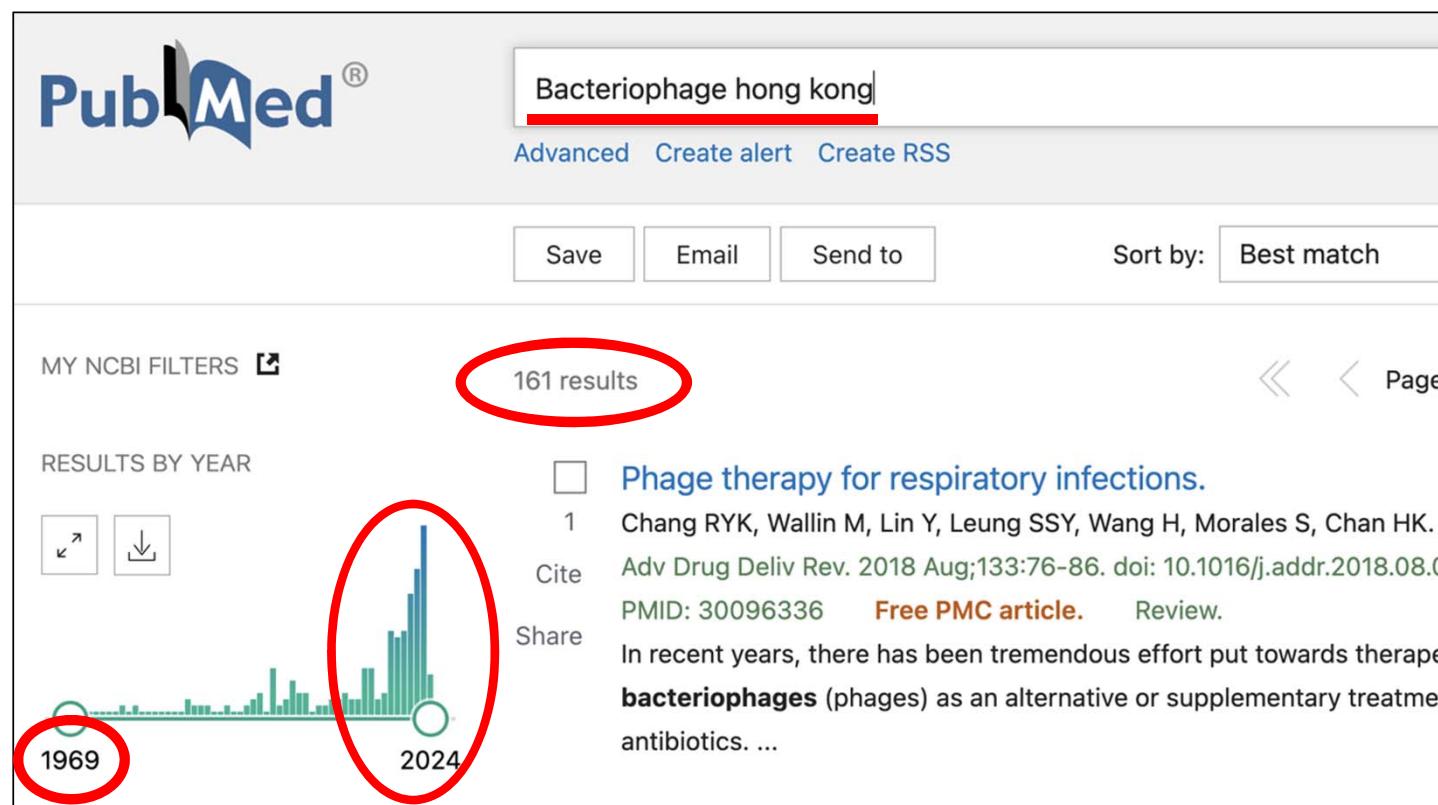
Bacteriophage therapy for empyema caused by carbapenem-resistant *Pseudomonas aeruginosa*



- Combined antibiotic with bacteriophage therapy may be effective at alleviating a MDR bacterial infection in Bronchopulmonary fistula-associated empyema.



Phage development in Hong Kong



- Many basic science research
- Minimal clinical study
- Most clinical studies had collaboration in China

中西醫協作

Traditional Chinese Medicine (TCM)





中醫醫院開院籌備啟動

2021-6-28

將軍澳中醫醫院2025年啟用
65%為資助服務收費參考公立醫院

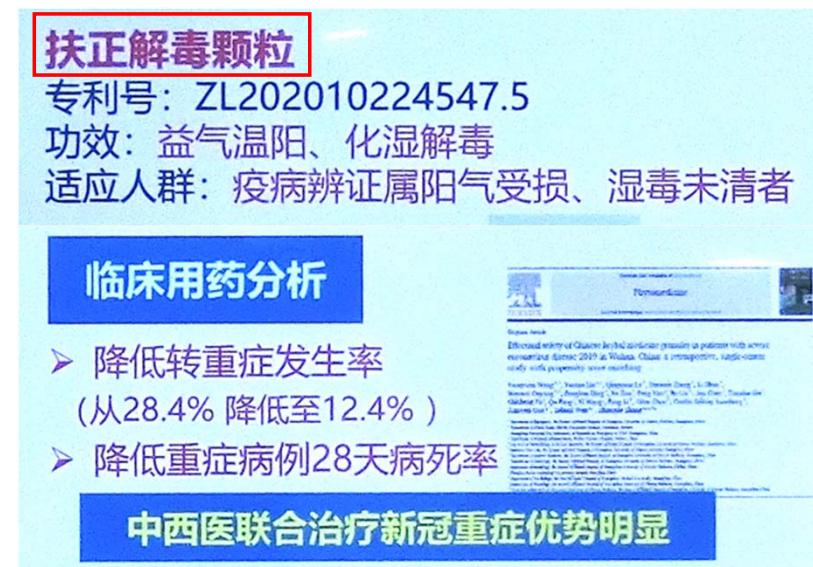
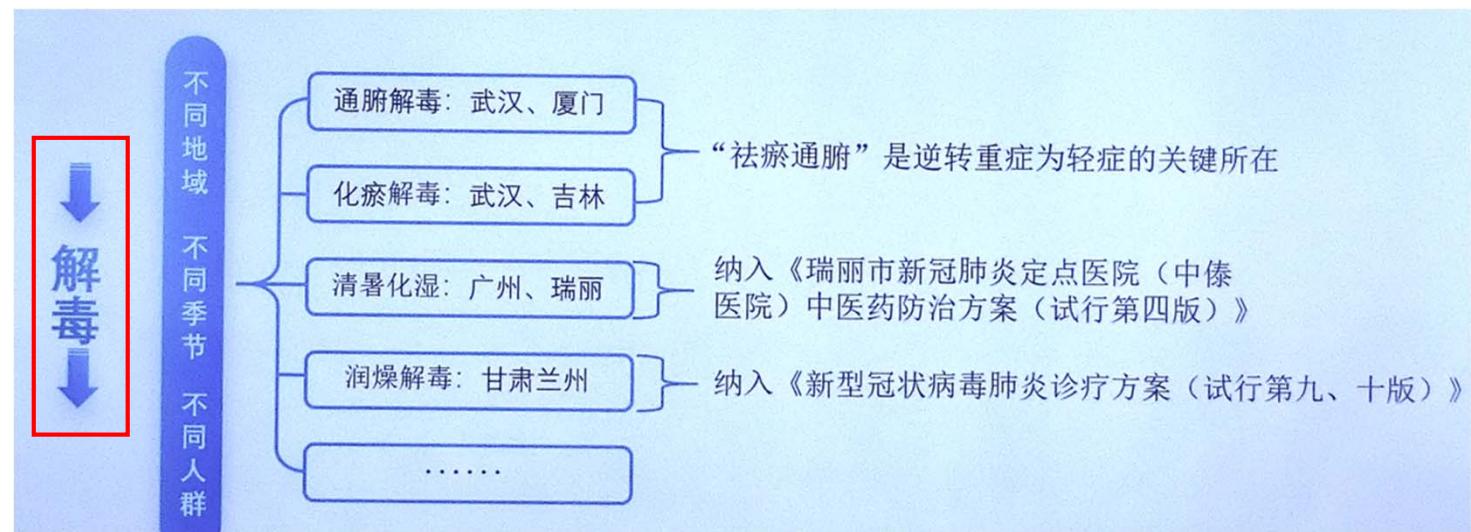
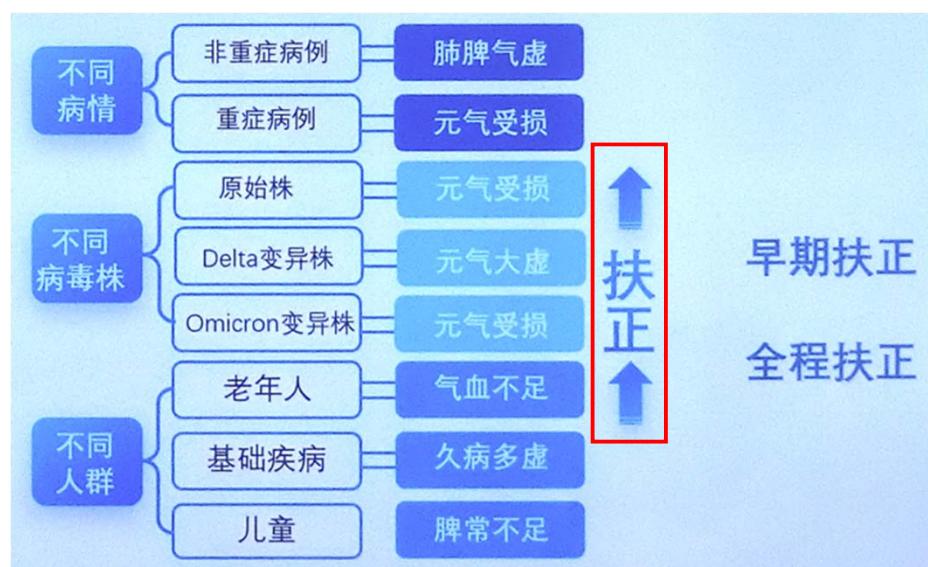
點擊睇片

《廣東省中醫學院與香港中醫醫院戰略合作協議》
簽署儀式

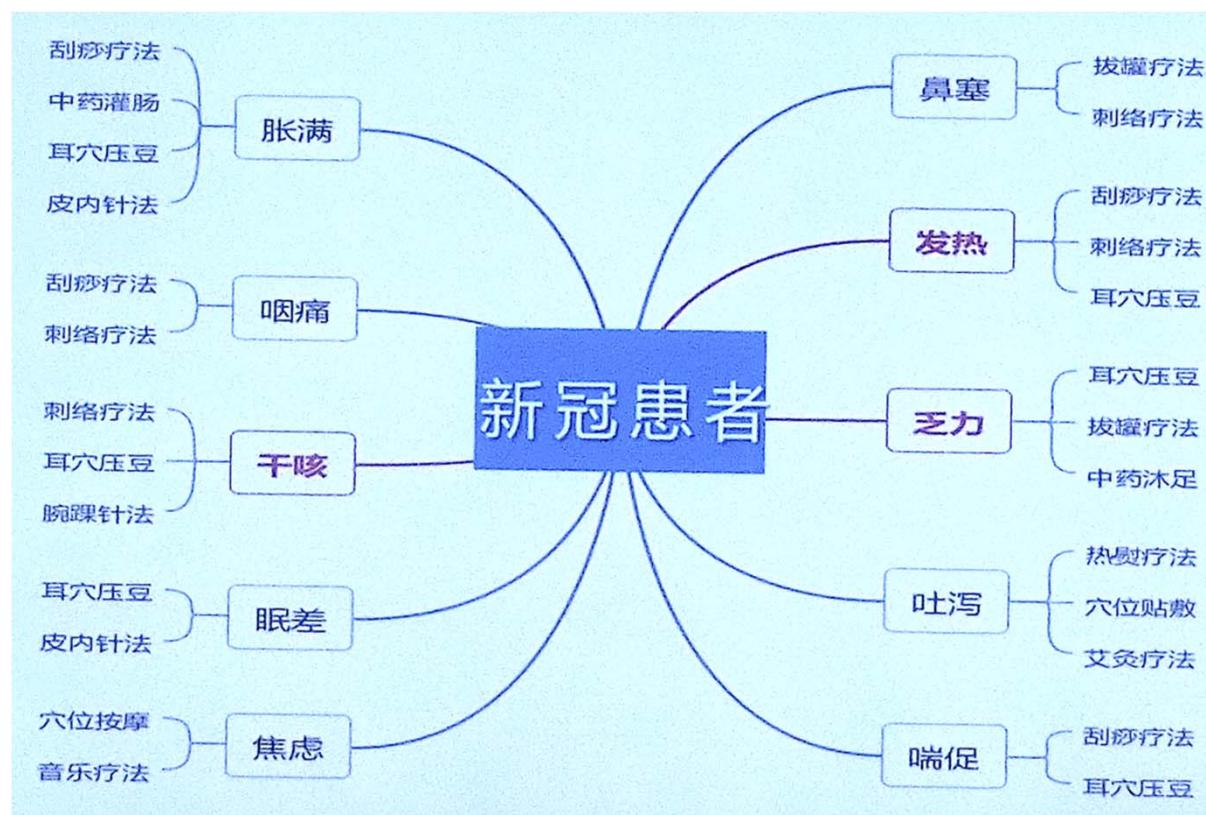
2024-1-24 24.1.2024

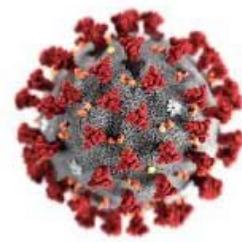
The top snippet shows two people standing in front of a modern building with a wooden facade and a curved roof. The text above them reads "中醫醫院開院籌備啟動". A logo for "O1 新聞" is in the top right corner. The bottom snippet shows three men in suits standing behind a red table during a signing ceremony. The text above them reads "《廣東省中醫學院與香港中醫醫院戰略合作協議》簽署儀式".

TCM for COVID patients



Other modalities of TCM treatment





中华人民共和国国家卫生健康委员会

National Health Commission of the People's Republic of China

新型冠状病毒感染诊疗方案 (试行第十版)

为进一步做好新型冠状病毒感染(COVID-19)诊疗工作，我们组织专家在《新型冠状病毒肺炎诊疗方案(试行第九版)》基础上，制定了《新型冠状病毒感染诊疗方案(试行第十版)》。

一、病原学特点

新型冠状病毒(以下简称新冠病毒，SARS-CoV-2)为 β 属冠状病毒，有包膜，颗粒呈圆形或椭圆形，直径60~140nm，病毒颗粒中包含4种结构蛋白：刺突蛋白(spike, S)、包膜蛋白(envelope, E)、膜蛋白(membrane, M)、核壳蛋白(nucleocapsid, N)。新型冠状病毒基因组为单股正链RNA，全长约29.9kb，基因组所包含的开放读码框架依次排列为5'-复制酶(ORF1a/ORF1b)-S-ORF3a-ORF3b-E-M-ORF6-ORF7a-ORF7b-ORF8-N-ORF9a-ORF9b-ORF10-3'。核壳蛋白N包裹着病毒RNA形成病毒颗粒的核心结构——核衣壳，核衣壳再由

(八) 中医治疗。

本病属于中医“疫”病范畴，病因为感受“疫戾”之气，各地可根据病情、证候及气候等情况，参照下列方案进行辨证论治。涉及超药典剂量，应当在医师指导下使用。针对非重点人群的早期新冠病毒感染者，可参照《新冠病毒感染者居家中医药干预指引》《关于在城乡基层充分应用中药汤剂开展新冠病毒感染治疗工作的通知》中推荐的中成药或中药协定方，进行居家治疗。

1. 治疗

1.1 清肺排毒汤

适用范围：适用于轻型、中型、重型、危重型病例，结合患者情况规范使用。

基础方剂：麻黄9g、炙甘草6g、杏仁9g、生石膏15~30g(先煎)、桂枝9g、泽泻9g、猪苓9g、白术9g、茯苓15g、柴胡16g、黄芩6g、姜半夏9g、生姜9g、紫菀9g、款冬花9g、射干9g、细辛6g、山药12g、枳实6g、陈皮6g、广藿香9g。

1.4 重型

(1) 痰毒闭肺证

临床表现：发热，气喘促，胸闷，咳嗽，痰黄黏少，或痰中带血，喘憋，口干苦黏，大便不畅，小便短赤。舌红，苔黄腻，脉滑数。

推荐处方：化湿败毒方

麻黄 6g、炒苦杏仁 9g、生石膏 15g（先煎）、甘草 3g、广藿香 10g、厚朴 10g、苍术 15g、草果 10g、法半夏 9g、茯苓 15g、生大黄 5g（后下）、黄芪 10g、葶苈子 10g、赤芍 10g。

服法：每日 1~2 剂，水煎服，每次 100ml~200ml，一日 2~4 次，口服或鼻饲。

(2) 气营两燔证

临床表现：大热烦渴，喘憋气促，神昏谵语，或发斑疹，或咳血，或抽搐。舌绛少苔或无苔，脉沉细数，或浮大而数。

推荐处方：生石膏 30~60g（先煎）、知母 30g、生地 30~60g、水牛角 30g（先煎）、赤芍 30g、玄参 30g、连翘 15g、丹皮 15g、黄连 6g、竹叶 12g、葶苈子 15g、甘草 6g。

1.5 危重型

(1) 内闭外脱证

临床表现：呼吸困难、动则气喘，伴神昏，烦躁，汗出肢冷。舌质紫暗，苔厚腻或燥，脉浮大无根。

推荐处方：人参 15g、黑附片 10g（先煎）、山茱萸 15g。送服苏合香丸或安宫牛黄丸。

(2) 针灸治疗推荐穴位：太溪、膻中、关元、百会、足三里、素髎。

(3) 重型、危重型推荐中成药：清肺排毒颗粒、化湿败毒颗粒、喜炎平注射液、血必净注射液、热毒宁注射液、痰热清注射液、醒脑静注射液、参附注射液、生脉注射液、参麦注射液。功效相近的药物根据个体情况可选择一种，也可根据临床症状联合使用两种。中药注射剂可与中药汤剂联合使用。

(4) 重型、危重型随症用药方法：

高热者，可使用安宫牛黄丸，每次 0.5 丸，每日 2~4 次。

Systematic review in COVID-19 patients treated with western medicine in combination with traditional Chinese medicine versus western medicine alone



Study ID	Study design	No. of patients	Methods of randomisation	Blind	Treatment duration (days)	TCM	WM	Indicators
Chen (Ref. 8)	NRC	115/115	No	NR	7	Ganlu Xiaodu decoction	Arbidol	①③⑤⑥⑦⑧⑨⑩
Cheng (Ref. 9)	NRC	51/51	No	NR	7	Lianhua Qingwen capsules	Antiviral drugs	①⑤⑥⑦
Ding (Ref. 10)	RC	51/49	Computer list	NR	10	Qingfei Touxie Fuzheng recipe	Antiviral drugs	⑤⑥⑧
Duan (Ref. 11)	RC	82/41	Computer list	NR	5	Jinhua Qinggan granules	Antiviral drugs	⑤⑥⑦
Fu (Ref. 12)	RC	37/36	NR	NR	NR	Toujie Quwen granules	Arbidol	①④⑨⑩
Fu (Ref. 13)	RC	32/33	Random table	NR	10	Toujie Quwen granules	Arbidol	①③⑧⑨⑩
Huang_1 (Ref. 14)	NRC	30/15	No	NR	NR	Other combinations	Antiviral drugs	③⑤⑥⑦⑧
Huang_2** (Ref. 14)	NRC	28/15	No	NR	NR	Other combinations	Antiviral drugs	③⑤⑥⑦⑧
Li (Ref. 15)	NRC	30/30	No	NR	NR	Qingfei Paidu decoction	Antiviral drugs	③④⑤⑥
Qu (Ref. 16)	NRC	40/30	No	NR	10	Shufeng Jiedu capsules	Arbidol	②⑤⑥⑦
Shi (Ref. 17)	NRC	49/18	No	NR	NR	Other combinations	Antiviral drugs	⑧
Xia (Ref. 18)	NRC	34/18	No	NR	NR	Other combinations	Antiviral drugs	③④⑤⑥
Xiao (Ref. 19)	RC	100/100	NR	NR	14	Shufeng Jiedu capsules	Arbidol	①⑤⑥⑦⑨
Yang (Ref. 20)	RC	26/23	NR	NR	7	Reyanning mixture	Antiviral drugs	②⑧⑩
Yao (Ref. 21)	NRC	21/21	No	NR	NR	Lianhua Qingwen granules	Antiviral drugs	⑤⑥⑦
Yu (Ref. 22)	RC	147/148	Random table	NR	7	Lianhua Qingwen granules	Arbidol	①③⑥⑨⑩
Zhang (Ref. 23)	NRC	22/22	No	NR	7	Xuebijing injection	Antiviral drugs	①②⑧



Systemic review: TCM+WM vs WM

	Integrated CM & WM vs WM No of cases	Risk ratio	95% CI
Improvement in symptoms	504/505	1.24	1.13-1.35
Cure rate (Normal Temp, sym & radiologic improve + PCR -ve)	101/84	1.27	1.03-1.56
Exacerbation rate	416/374	0.36	0.25-0.52
PCR -ve	88/75	1.20	0.78-1.85
Fever remission rate	232/200	1.24	1.09-1.42
Fever remission time	349/290	-1.49d	-1.85, -1.12

醫院管理局新型冠狀病毒中醫指南



Hospital Authority Head Office

Protocol on Special Chinese Medicine Programme for Adult Cases with COVID-19 in Community Treatment Facilities / North Lantau Hospital Hong Kong Infection Control Center

Document No.	HAHO-IM-PC-CMD-005-v4
Issue Date	3 May 2021
Review Date	3 May 2023
Page	1 of 16

**Protocol on Special Chinese Medicine Programme
for Adult Cases with COVID-19
In Community Treatment Facilities / North Lantau
Hospital Hong Kong Infection Control Center**

Version	Effective Date
1	January 2021
2	February 2021
3	March 2021
4	May 2021

臨床分類

B. 中醫辨證分型

#	證型	臨床表現
1.	風熱犯衛 ^[2]	主症：發熱或未發熱，咽紅不適，輕咳少痰，口乾。舌質邊尖紅，苔薄或薄膩。
2.	風寒化熱，或夾濕	主症：發熱惡寒或寒熱往來、頭痛身重、咳嗽、痰黏難咯、氣喘。舌苔厚或厚膩、白或黃。 次症：咽乾，胸悶脘痞，嘔惡納呆，消渴，小便不利，便溏或大便粘滯不爽。
3.	氣陰兩虛 ^[1]	主症：乏力，氣短，口乾，口渴，心悸，納差，舌乾少津。 次症：低熱或不熱，汗多，乾咳少痰。
4.	外感風寒，內傷濕滯 ^[3]	主症：發熱惡寒，頭痛，脘腹疼痛，腸鳴腹瀉，舌苔白膩。

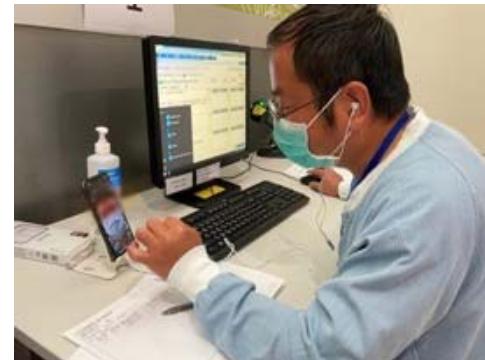
治療方案

C. 治法方藥

#	證型	治法	對應方藥
1.	風熱犯衛	疏風解表，清熱解毒	銀翹散加減：
			金銀花 10 克 荊芥穗 10 克
			連翹 10 克 甘草 5 克
			桑葉 10 克 苦杏仁 10 克
			菊花 10 克 蜜枇杷葉 10 克
			桔梗 10 克 黃芩 10 克
			蘆根 30 克 僵蠶 5 克
			浙貝母 10 克 茯苓 15 克
			桑白皮 12 克
2.	風寒化熱，或 夾濕	宣肺解表，清熱利濕	清肺排毒湯加減：
			麻黃 5 克 薑半夏 10 克
			炙甘草 5 克 生薑 5 克
			苦杏仁 10 克 紫菀 10 克
			(生)石膏 15 克 款冬花 10 克
			桂枝 5 克 射干 10 克
			豬苓 10 克 細辛 2.5 克
			白朮 10 克 山藥 15 克
			茯苓 10 克 枳實 5 克
			柴胡 10 克 陳皮 5 克
			黃芩 10 克 廣藿香 10 克

3.	氣陰兩虛	益氣養陰	沙參麥冬湯加減：
			南沙參 10 克 丹參 15 克
			北沙參 10 克 甘草 5 克
			麥冬 10 克 山楂 10 克
			西洋參 20 克 山藥 20 克
			淡竹葉 10 克 陳皮 5 克
			桑葉 10 克 茯神 10 克
			蘆根 15 克 白朮 12 克
4.	外感風寒， 內傷濕滯	解表化濕，理氣和中	藿香正氣散加減：
			廣藿香 15 克 陳皮 10 克
			大腹皮 5 克 厚樸 10 克
			白芷 5 克 桔梗 10 克
			紫蘇葉 5 克 炙甘草 5 克
			茯苓 10 克 生薑 10 克
			薑半夏 10 克 大棗 15 克
			白朮 10 克

亞洲世界博覽會新型冠狀病毒中醫藥服務



中藥配方顆粒沖調步驟

1. 首先將熱水(可使用場內冷熱水機)小心倒入杯內至約6分滿(約150毫升) (注意：小心燙傷)
2. 然後按藥袋標籤上的服用劑量指示·把中藥配方顆粒倒入熱水中
3. 蓋上杯蓋浸泡約3分鐘
4. 緩緩攪拌·待溫度適合方可服用



WHO Expert Meeting on Evaluation of Traditional Chinese Medicine in the Treatment of COVID-19

**WHO Expert Meeting on Evaluation of
Traditional Chinese Medicine
in the Treatment of COVID-19**

(28 February – 2 March 2022)

Traditional, Complementary and Integrative Medicine
World Health Organization

Recommendations to WHO

The Expert Meeting recommended to WHO:

- to share the outcomes of this consultation with Member States in a timely manner given the evolving nature of COVID-19 globally;
- to encourage Member States to consider the integration of traditional medicine interventions such as TCM in planning for the clinical management of COVID-19 in the context of their health-care systems and regulatory frameworks;
- to provide technical support to Member States for the application of TCM in practice and in further research;
- to facilitate international clinical trials to further evaluate the potential benefits and safety of TCM for treatment of persons with COVID-19 across the care continuum;
- to encourage Member States to consider the integrative care model that has been developed and applied in China.



Designated hospital for infectious diseases: TCM

Respiratory infection:

- Post infection cough
- Antiviral

Dengue infection:

- 柴石解毒颗粒

HIV infection:

- Immune recovery

Liver infection:

- Antivirals
- Liver failure
- Refractory ascites

Aikeqing Granules 艾可清颗粒 Helps CD4 recovery

Journal of Traditional Chinese Medical Sciences 8 (2021) 291–301

Contents lists available at ScienceDirect
Journal of Traditional Chinese Medical Sciences
journal homepage: www.elsevier.com/locate/jtcms




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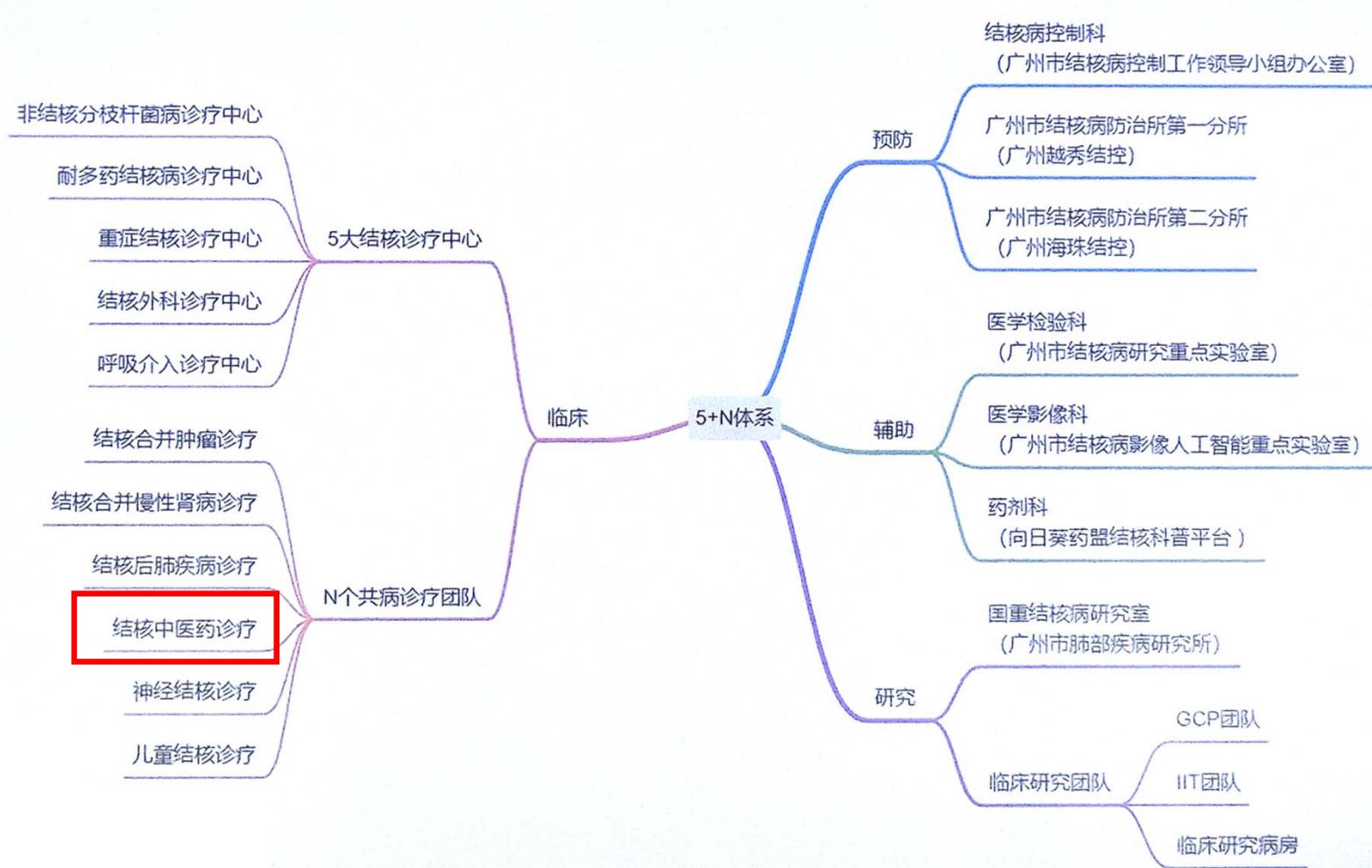
Chinese herbal medicine for incomplete immune reconstruction in patients with AIDS undergoing antiretroviral treatment: A systematic review of randomized trials

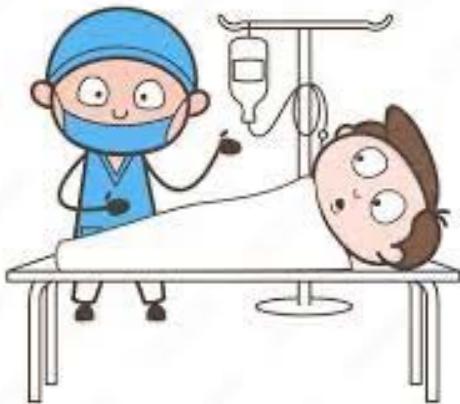
Incomplete immune reconstruction: CD4 <200 cells/ mL for patients on HAART > 1 year and < 2 years; or CD4 <350 cells/mL on HAART for > 2 years

Comparison	Chinese herbal medicine	Time point of the outcome measurement post-treatment	No. of the included studies	Mean difference in CD4	
				[cells/ μ L]	[95% CI]
Chinese herbal medicine plus HAART versus HAART	Shenling Fuzheng capsules	6 months	1	49.53 [8.45, 90.61]	N.A.
		12 months	1	47.35 [11.25, 83.45]	N.A.
	Jianpi Yiqi medicinal paste	3 months	1	63.30 [3.65, 122.95]	N.A.
		3 months	1	1.50 [-79.23, 82.23]	N.A.
	Aikeqing granules	3 months	1	33.75 [-1.72, 69.22]	N.A.
		6 months	1	35.95 [-2.92, 74.82]	N.A.
		9 months	1	61.51 [16.25, 106.77]	N.A.
		12 months	1	49.86 [10.06, 89.77]	N.A.



TCM in the management of TB





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