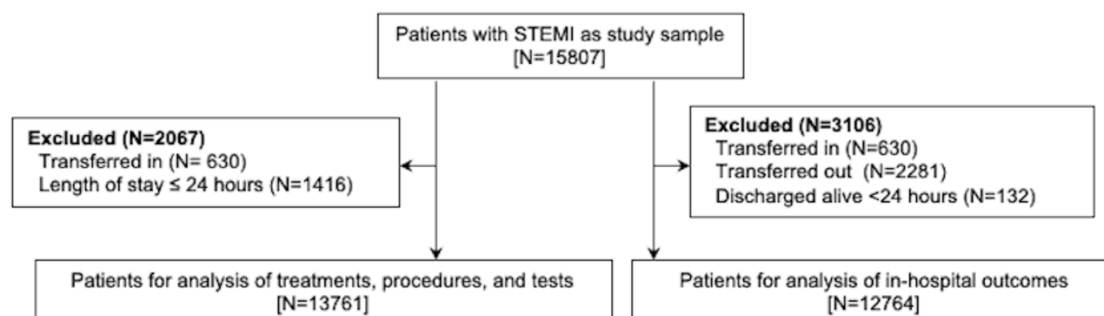


## 1 **SUPPLEMENTARY MATERIAL**

2 Supplementary Figure S1

3 Supplementary Table S1 – S5

4 Supplementary Methods

1 **SUPPLEMENTARY FIGURES AND FIGURE LEGENDS**

2

3 **Supplementary Figure S1: Study profile**

4 AMI = acute myocardial infarction. STEMI = ST-segment elevation myocardial infarction.

5 NSTEMI = non-ST-segment elevation myocardial infarction. Number of hospitals of the 16052

6 patients in this paper: 166.

7

1 **SUPPLEMENTARY TABLES**2 **Supplementary Table S1: STEMI patients as a proportion of all AMI patients**3 **(unweighted)**

	2011		2015		P
	Relative Frequency	Percent (95% CI)	Relative Frequency	Percent (95% CI)	
% STEMI among all AMI	7696/933 3	82.5%(81.7- 83.3)	8111/1183 4	68.5%(67.7- 69.3)	<0.000 1

4

5

1 **Supplementary Table S2: Pre-hospital delay among different groups of patients.**

	2011		2015		p value
	Relative frequency	Percent (95% CI)	Frequency	Percent (95% CI)	
Long delay*/Among STEMI	3285/6643	49.5%(48.2-50.7)	4050/7118	56.9%(55.7-58)	<0.0001
Long delay*/Among reperfusion ineligible	3285/3365	97.6%(97.1-98.1)	4050/4113	98.5%(98.1-98.8)	0.0079
Long delay*/Among no reperfusion	3285/4874	67.4%(66.1-68.7)	4050/5279	76.7%(75.6-77.9)	<0.0001

2 \*Long delay is &gt;12 hours between symptom onset and admission

3

1 **Supplementary Table S3: Reperfusion eligibility and contraindications among all STEMI**  
 2 **patients\***

	2011		2015		
	Freque ncy	Percent (95% CI)	Freque ncy	Percent (95% CI)	p value
Patients eligible for reperfusion / all patients with STEMI	3278/6643	49.3%(48.1-50.5)	3005/7118	42.2%(41.1-43.4)	<0.0001
<b>Ineligible patients</b>					
Late presenters (>12h) / all patients with STEMI	3285/6643	49.5%(48.2-50.7)	4050/7118	56.9%(55.7-58)	<0.0001
Hemorrhage stroke at admission / all patients with STEMI	6/6643	0.1%(0-0.2)	12/7118	0.2%(0.1-0.3)	0.2
Gastrointestinal bleeding at admission / all patients with STEMI	48/6643	0.7%(0.5-0.9)	53/7118	0.7%(0.5-0.9)	0.9
Hemorrhage stroke history / all patients with STEMI	90/6643	1.4%(1.1-1.6)	93/7118	1.3%(1-1.6)	0.8

3 \*all patients with STEMI for analysis of treatment process (n=13761), which is patients with  
 4 STEMI, after excluding those who were transferred in and had length of stay <24h

5

1 **Supplementary Table S4: Reperfusion contraindications among reperfusion-ineligible**

2 **patients**

	2011		2015		
	Frequ ency	Percent (95% CI)	Frequ ency	Percent (95% CI)	p valu e
Late presenters (>12h) / ineligible patients	3285/ 4874	67.4%(66. 1-68.7)	4050/ 5279	76.7%(75. 6-77.9)	<0.0 001
<b>Other contraindications</b> (among reperfusion-ineligible patients and excluding late presenters)					
Hemorrhage stroke at admission / (ineligible patients – late presenters)	2/158 9	0.1%(0- 0.3)	4/122 9	0.3%(0- 0.6)	0.25 43
Gastrointestinal bleeding at admission / (ineligible patients – late presenters)	14/15 89	0.9%(0.4- 1.3)	12/12 29	1%(0.4- 1.5)	0.79 29
Hemorrhage stroke history / (ineligible patients – late presenters)	35/15 89	2.2%(1.5- 2.9)	27/12 29	2.2%(1.4- 3)	0.99 18

3

1     **Supplementary Table S5: Unadjusted STEMI outcomes**

	2011	2015	P
Length of stay	11(7-15)	10(7-13)	<0.0001
In-hospital death	496(7.7%[7.1-8.3])	499(7.7%[7.1-8.3])	0.9
Treatment withdrawal	224(3.5%[3.1-3.9])	321(5%[4.5-5.5])	<0.0001

2

## SUPPLEMENTARY METHODS

### China PEACE-Retrospective AMI Study Sampling Design

We intended study hospitals to reflect diverse sites of care in China. As hospital volumes and clinical capacities differ between urban and rural areas as well among the 3 official economic-geographic regions of China, we separately identified hospitals in 5 strata: Eastern-rural, Central-rural, Western-rural, Eastern-urban, and Central/Western-urban regions. We considered an area urban if it is part of a downtown or suburban area within a direct-controlled municipality (Beijing, Tianjin, Shanghai, Chongqing) or 1 of 283 prefectural-level cities. We considered surrounding county-level regions, including counties and county-level cities, to be rural. Within this framework, China is composed of 287 urban regions and 2010 rural regions. We considered Central and Western urban regions together given their similar per capita income and health services capacity as shown below:

### Population, Economy, and Hospitals in Different Geographic Strata of Mainland China

	Eastern	Central	Western
<b>Rural Setting</b>			
<b>Population *</b>	256,899,053	205,567,264	222,491,738
<b>Income per capita (RMB)<sup>†</sup></b>	9,256	6,351	5,604
<b>Level of central hospital</b>			
<b>Tertiary (%)</b>	33 (5%)	12 (2%)	30 (3%)
<b>Secondary (%)</b>	586 (92%)	462 (92%)	739 (85%)
<b>Primary (%)</b>	20 (3%)	26 (5%)	102 (12%)
<b>Total</b>	639	500	871

<b>Urban Setting</b>			
<b>Population</b> *	336,364,491	150,467,917	144,803,916
<b>Income per capita (RMB)</b> †	21,547	15,539	15,523
<b>Median # of hospitals per urban area (IQR)</b> ‡			
<b>Tertiary</b>	3 (2-6)	2 (1-3)	2 (1-4)
<b>Secondary</b>	5 (3-8)	4 (3-6)	3 (2-6)

\* Statistics in 2009 from the National Bureau of Statistics of China  
(<http://www.stats.gov.cn/tjsj/ndsj/2010/indexch.htm>)

† Statistics in 2009 from the National Bureau of Statistics of China  
(<http://www.stats.gov.cn/tjsj/ndsj/2010/indexch.htm>)

‡ Median (interquartile range)

We identified cases for study inclusion using a stratified 2-stage cluster sampling design. In the first stage, we identified hospitals using a simple random sampling procedure within each of the 5 study strata. In the 3 rural strata, the sampling framework consisted of the central hospital in each of the predefined rural regions (2010 central hospitals in 2010 rural regions). Within each rural region, the central hospital is the largest general hospital with the greatest clinical capacity for treating acute illness. In each of the 2 urban strata, the sampling framework consisted of the highest-level hospitals in each of the predefined urban regions (833 hospitals in 287 urban regions). Hospital level is officially defined by the Chinese government based on clinical resource capacity. For example, secondary hospitals have at least 100 inpatient beds and the capacity to provide acute medical care and preventive care services to populations of at least 100,000, while tertiary hospitals are large referral centers in provincial capitals and major cities.

We excluded military hospitals prison hospitals, specialized hospitals without a cardiovascular disease division, and traditional Chinese medicine hospitals. Since the majority of hospitals in China are publicly owned and administered, hospital closure is rare, and hospital number has remained stable over the past decade. We therefore decided to select representative hospitals from 2011 to reflect current practices and trace this cohort backward to 2006 and 2001 to describe temporal trends.

In the second stage, we drew cases based on the local hospital database for patients with acute myocardial infarction at each sampled hospital. We ordered each hospital's list of eligible cases by date of admission and selected cases using systematic random sampling with equal probabilities. We selected a case at random, after which we selected every  $k^{\text{th}}$  case based on sample size requirements, where  $k$  is the sampling interval.

In each of the 5 study strata, we determined the sample size required to achieve a 2% precision for describing the primary outcome, in-hospital mortality, which we had estimated to be approximately 9% in urban hospitals and 7% in rural county-level hospitals.

The following *Equation 1* can be used to define the sample size required ( $n$ ) for a given proportion of the primary outcome ( $P$ ), desired precision ( $d$ ), and specific choice of  $\alpha$ .

*Equation 1:*

$$n = \frac{z_{\alpha}^2 \cdot P(1 - P)}{d^2}$$

1

2

3 However, because random cases sampled within the same hospital are likely to be more similar  
4 to one another than to random cases from another hospital, the effective sample size is reduced.  
5 Consequently, a design effect adjustment should be introduced as follows:

6

7

8 *Equation2:*

$$9 \quad n = \frac{z_{\alpha}^2 \cdot P(1 - P)}{d^2} \times deff$$

10

11

12 Where the design effect (*deff*) is given by

13

14

15 *Equation3:*

$$16 \quad deff = 1 + \delta (\bar{n}' - 1)$$

17

18

19 where  $\delta$  is the intraclass correlation for the statistic in question and  $\bar{n}'$  is the average number of  
20 sampled cases within each hospital.  $\bar{n}'$  is also known as the cluster size.

21 With this framework in mind, to achieve a precision of 2% with an  $\alpha$  of 0.05 in each of the 3

22 rural strata, assuming an intraclass correlation of 0.02 and design effect of 1.8, we would need to

1 sample 1150 medical records among hospitals with an average cluster size of 40. Analogously, to  
2 achieve a precision of 2% with an  $\alpha$  of 0.05 in each of the 2 urban strata, assuming an intraclass  
3 correlation of 0.02 and design effect of 2.2, we would need to sample 1750 medical records  
4 among hospitals with an average cluster size of 60. These cluster sizes in rural and urban settings  
5 appeared reasonable based upon our previous survey of treatment for acute coronary syndromes  
6 at more than 1000 hospitals in 2010, which demonstrated that the median volume of  
7 hospitalization for acute myocardial infarction was approximately 180 cases per year in urban  
8 hospitals and 95 cases per year in rural county-level hospitals. Assuming an anticipated  
9 participation rate of 85% among selected hospitals, we approached 35 hospitals for participation  
10 in each stratum for a total of 175 hospitals (70 urban and 105 rural). We doubled cluster sizes for  
11 2011 and 2015 to improve precision in the description of hospital-level treatment patterns and  
12 outcomes.

13

14

## **Ideal candidates for the treatments**

Patients who were transferred in or whose lengths of hospital stay did not exceed 24 hours were excluded for all the following treatments.

For the reperfusion therapy, we included patients who were admitted within 12 hours of symptom onset and did not receive reperfusion therapy before hospital presentation. Then we excluded patients with any contraindications (history of hemorrhagic stroke, active bleeding at presentation, or any other physician documented contraindications for fibrinolytic therapy if the patient was treated in non-percutaneous coronary intervention (PCI) capable hospital; allergy to contrast agents or any other documented contraindication to PCI if the patient was treated in PCI-capable hospital).

For aspirin, we excluded patients with any contraindications for aspirin (allergy to aspirin, active bleeding on admission, history of hemorrhagic stroke, or other documented contraindications).

For clopidogrel, we excluded patients who participated in the CLOpidogrel and Metoprolol in Myocardial Infarction Trial (COMMIT) or patients with any contraindications for clopidogrel (allergy to clopidogrel, active bleeding on admission, history of hemorrhagic stroke, or other documented contraindications).

For beta-blockers, we excluded patients who participated in the CLOpidogrel and Metoprolol in Myocardial Infarction Trial (COMMIT) or patients with any contraindications for beta-blockers

1 (allergy to beta-blockers, cardiogenic shock on admission, heart failure on admission, second or  
2 third degree atrioventricular block with no pacemaker implanted, systolic blood pressure  
3 <100mmHg on admission, bradycardia [heart rate <60 beats/min] on admission without taking a  
4 beta-blocker, or other documented contraindications).

5

6 For angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARB), we  
7 excluded patients with any contraindications for ACE inhibitors (allergy to ACE inhibitors,  
8 hyperkalemia (serum potassium  
9 >5.5 mmol/L during hospitalization), creatinine >265 umol/L during hospitalization, pregnancy  
10 or breast feeding, or other documented contraindications).

11

12 For statins, we excluded patients who were allergy to statins.

13

**The seven categories of traditional Chinese medicines commonly used in China among patients with acute myocardial infarction**

- (1) Salvia miltiorrhiza/Red Ginseng/Ginseng (e.g. Danshen dripping pill, Tanshinone)\*
- (2) Ginkgo (e.g. Ginkgo biloba, Ginkgo biloba extract)\*
- (3) Panax notoginseng (e.g. Panax notoginseng saponins, Xueshuantong injection)\*
- (4) Hirudo (e.g. Lepirudin, Shuxuetong injection)\*
- (5) Erigeron Breviscapus (e.g. Erigeron breviscapus injection, Breviscapinun)\*
- (6) Lipid lowering agents (e.g. Xuezhikang, Taizhian)
- (7) Other (e.g. Puerarin, Suxiao jiuxin pills, Kyushin pills)

\* based on the main functional ingredient.

## Definition of in-hospital complications

### 1) Re-infarction

Indicate if there is physician documentation of recurrent myocardial infarction during hospitalization.

### 2) Cardiogenic shock

Indicate if there is physician documentation of cardiogenic shock during hospitalization.

### 3) Ischemic stroke

Indicate if there are physician documentations of new-onset ischemia stroke and stroke-related symptoms during hospitalization. The stroke-related symptoms include: trouble walking/loss of balance/incoordination, one-sided numbness or hemi-anesthesia, one-sided facial numbness or hemi-anesthesia, mouth askew and drooling, dysarthria or slurred speech, loss of vision or blurred vision in one or both eyes, dizziness with vomiting, severe headache and vomiting, unconsciousness, and hyperspasmia.

### 4) Congestive heart failure

Indicate if there is physician documentation of heart failure during hospital stay. This include those without a history of heart failure but develop heart failure during hospitalization, and those with a history of heart failure as a chronic comorbidity and develop worsening heart failure during hospitalization.

# 1 China PEACE-Retrospective AMI Study Site Investigators by Hospital

2 All collaborating hospitals accepted the central ethics approval except for five hospitals (***bold***  
3 ***and italicized***), which obtained local approval from internal ethics committees.

4  
5 Aba Tibetan and Qiang Autonomous Prefecture People's Hospital, ShipingWeng, ShuyingXie;  
6 Affiliated Hospital of Guiyang Medical College, Lirong Wu, Jiulin Chen; Affiliated Hospital of  
7 Hainan Medical College, Tianfa Li, Jun Wang; ***Affiliated Zhongshan Hospital of Dalian***  
8 ***University***, Qin Yu, Xiaofei Li; Alxa League Central Hospital, Zhong Li, ShiguoHao, Yuzhen  
9 Zhang, Xuemei Wu; Baiquan County People's Hospital, Yachen Zhang, Zhifeng Liu; Biyang  
10 People's Hospital, Zhongxin Wang, HaoJia; Bortala Mongol Autonomous Prefecture People's  
11 Hospital, Bayin Bate, BadengQiqige; Changda Hospital Of Anshan, Xiang Jin, Ting Cai;  
12 Chengwu County People's Hospital, Fengqin Liu, Dayong Xu; Chenxi County People's Hospital,  
13 Xuejin He, Shui Yang; Chongren County People's Hospital, Chun Yuan, Jiping Wang; County  
14 People's Hospital of Jinning, LihuaGu, Lin Li, Shijiao Chen; Dalian Municipal Central Hospital,  
15 YongchaoZhi, Lili Sun; Dao County People's Hospital, Shengcheng Zhou, Lingjiao Jin; Daofu  
16 County People's Hospital, Yong Leng, Liangchuan Zhang, Tianyun Deng; Dingyuan County  
17 People's Hospital of Anhui Province, Yuanjin Wang, Wenhua Zhang, Xinmin Ma; Dongyang  
18 People's Hospital, Weimin Li, Liang Lu, Xuan Ge; Dulong and Nu Autonomous County People's  
19 Hospital of Gongshan, Xiaoping Wu, Yanming He; Dunhua City Hospital of Jilin Province,  
20 FanjuMeng, Jia Li; Fenghuang County People's Hospital, Dexi Liao, Guangyong Liu, Wen Qin;  
21 Fengshan County People's Hospital, Wen Long, Xiangwen Chen; Fourth Hospital of Baotou  
22 City, Baohong Zhang, Yonghou Yin, Bin Tian; Fourth People's Hospital of Zigong City, Yong  
23 Yi, Chaoyong Wu; Fugu County People's Hospital of Shaanxi Province, Baoqi Liu, Zhihui Zhao,

1 Haiming Li; Fujian Provincial Hospital, YansongGuo, Xinjing Chen; Fuling Center Hospital of  
2 Chongqing City, Liquan Xiang, Lin Ning; Gannan County People's Hospital, Mei Chen, Xin Jin,  
3 Guiling Li; General Hospital of the Yangtze River Shipping, Xiuqi Li, Xing'an Wu; Gongcheng  
4 Yao Autonomous County People's Hospital, Congjun Tan, Mingfang Feng, Meili Wang;  
5 Guangchang County People's Hospital, Liangfa Wen, Xiang Fu, QunxingXie; Guilin People's  
6 Hospital, Wei Zhang, Yanni Zhuang, Hua Lu;Guiping People's Hospital, Jiaqian Lu, Yu Huang;  
7 Haerbin 242 Hospital, Yin Zhou, Qiuling Hu; Haiyan People's Hospital, Chunhui Xiao, Xiaoli  
8 Hu; Heling Ge Er County People's Hospital, Yongshuan Wu, Qiuli Wang; Helong Municipal  
9 People's Hospital, Youlin Xu, Xuefei Yu; Henan Provincial People's Hospital, Chuanyu Gao,  
10 Jianhong Zhang, You Zhang; Heze Municipal Hospital, WentangNiu, Xiaolei Ma, Yong Wang;  
11 HGKY Group Company General Hospital, Xiaowen Pan, Yanlong Liu; ***Hua Xin Hospital (First***  
12 ***Hospital of Tsinghua University)***, Lifu Miao, Yanping Yin, Zhiying Zhang; Huai ren People's  
13 Hospital, Shutang Feng; Huayin People's Hospital, Aiping Wang, Jiangli Zhang, Feipeng Li;  
14 Huaying People's Hospital , Hong Wang; Hunchun Hospital, Lijun Yu, Xinxin Zhao; Huizhou  
15 Municipal Central Hospital, Yuansheng Shen, Zhiming Li, Lizhen He; Hunan Province  
16 Mawangdui Hospital, ZhiyiRong, Wei Luo; Ji'an Municipal Central People's hospital, Xueqiao  
17 Wang; Jianghua Yao Autonomous County People's Hospital, Rongjun Wan, Jianglin Tang,  
18 Guanghan Wu; Jiangsu Haimen People's Hospital, Jie Wu, Bin Xu; Jiangxi Provincial People's  
19 Hospital, Qing Huang, Xiaohe Wu; Jiangzi County People's Hospital, Sang Ge, Pian Pu,  
20 PingcuoDuoji; ***Jilin Province People's Hospital***, Hui Dai, Yuming Du, Wei Guo; Jilin Integrated  
21 Traditional Chinese & Western Medicine Hospital, Jilin Province, Jianping Shi; Jinghai County  
22 Hospital, Peihua Zhao, Jingsheng Sun; Jingxi County People's Hospital, Hongxiang Li, Wen  
23 Liang; Jingxing County Hospital, Zhiwen Dong, Zhenhai Zhao; Jingzhou Central Hospital, Xin

1 Li, Qin Xu; Jiuquan City People's Hospital, Yaofeng Yuan, Zhirong Li; Jixi People's Hospital of  
2 The Jixi Municipal People's Hospital Medical Group, Jinbo Gao; Jize County Hospital,  
3 Qiu'eGuo; Kangbao County People's Hospital, Ruiqing Zhao, Guangjun Song; Keshiketengqi  
4 Hospital of Chifeng City, Lize Wang, Haiyun Song; Lanping Bai and Pumi Autonomous County  
5 People's Hospital, Jinwen He, Jinming He; Laoting County Hospital, Keyong Shang, Changjiang  
6 Liu, Kuituan Xi; Liaoyang Central Hospital, Rihui Liu, Peng Guo; Liaoyuan Central Hospital,  
7 ChaoyangGuo, Xiangjun Liu, Rujun Zhao, Zeyong Yu; Lindian County Hospital, Wenzhou Li,  
8 Xudong Jing, Huanling Wang; Linxiang People's Hospital, Xiyuan Zhao, Chao Zhang, Long  
9 Chen; Liujiang County People's Hospital, Meifa Wei, Yan Liu, Shengde Chen; Longyan First  
10 Hospital, Kaihong Chen, Yong Fang, Ying Liao; Luancheng County Hospital, Junli Wang,  
11 Tianyu Liu, Suzhe Cheng; Lucheng People's Hospital, Yunke Zhou, XiaoxiaNiu, Huifang Cao;  
12 Luchuan County People's Hospital, Zebin Feng, Min Feng; Luxi County People's Hospital,  
13 FeilongDuan, Haiming Yi; Luyi County People's Hospital, Yuanxun Xu, AnranGuo; Macheng  
14 People's Hospital, Xianshun Zhou, HongzhuanCai, Peng Zheng; Mengcheng First People's  
15 Hospital, GaofengGuo; MenglianLahudaiwa autonomous counties People's Hospital, Xiang Li;  
16 Min County People's Hospital, MinwuBao, Yuhong Liu; Nanjing First Hospital, Shaoliang Chen,  
17 HaiboJia, Hongjuan Peng; Nan'an Hospital, Duanping Dai, Shaoxiong Hong; Nantong Third  
18 People's Hospital, Song Chen, Dongya Zhang, Ying Wang; Nanyang Central Hospital, Yudong  
19 Li, Jianbu Gao, Shouzhong Yang; Ningwu County People's Hospital, Junhu An; Peking  
20 University People's Hospital, Chenyang Shen, Yunfeng Liu; Peking University Shenzhen  
21 Hospital, Chun Wu, Huan Qu, Saiyong Chen; People's Hospital of Jingyu, Yuhui Lin, Dehai  
22 Jiao; People's Hospital of Yueqing City, Manhong Wang, Qiu Wang; Pianguan County People's  
23 Hospital, YingliangXue, Ruijun Zhang; Puding County People's Hospital, Cheng Yuan, Lei Wu;

1 Qinghai Red Cross Hospital, Jianqing Zhang, Chunmei Wei, Yanmei Shen; Qinshui County  
2 People's Hospital, Hehua Zhang, Hongmei Pan, Yong Gao; Qinyang People's Hospital, Xiaowen  
3 Ma, Yanli Liang, Tianbiao Wang; Queshan County People's Hospital, Daguo Zhao; Quzhou  
4 People's Hospital, XiaomingTu, Zhenyan Gao; Rongjiang County People's Hospital, Fangning  
5 Wang, Qiang Yang; Rudong County People's Hospital, Xiaoping Kang, Jianbin Fang, Dongmei  
6 Liu; Ruyang County People's Hospital, Chengning Shen, Mengfei Li; Shangluo Central Hospital,  
7 Yingmin Guan, Wenfeng Wang, Ting Xiao; ShangqiuChangzheng People's Hospital, Qian  
8 Wang; Shaoyang County People's Hospital, Fengyun Jiang, Kaiyou Wu; Shengsi People's  
9 Hospital, Songguo Wang; Shenyang Weikang Hospital, Xujie Fu, Shu Zhang, Lifang Gao;  
10 ShougangShuicheng Iron & Steel (Group) Co., Ltd. General Hospital, Min Zhang, Kai Fu,  
11 XiaojingDuan; Shuangshan Hospital Of Anshan, Rui Xiao, Ruixia Wu, Bin Li; Siziwang County  
12 People's Hospital, Hongtu Zhang, Yuerong Ma, Zhonghui Cao; SunanYugur Autonomous  
13 County People's Hospital, Zhansheng Ba, Wanhai Fu; Taizhou Hospital of Zhejiang Province,  
14 Jianjun Jiang, YafeiMi, Weiwei Zhou; The Affiliated Hospital of Beihua University, Feng Sun,  
15 Qi Zhang, Shiyu Zheng; The Fifth People's Hospital of Dalian, Jing Zhang, Yang Zhong; The  
16 First Affiliated Hospital of Hebei North University, Fangjiang Li, Xiaoyuan Wang; The First  
17 Affiliated Hospital of Henan University of Science & Technology, Pingshuan Dong, Laijing Du,  
18 Wei Liu; The First Affiliated Hospital Of Jia Mu Si University, Zhaofa He, Meihua Jin; The First  
19 Hospital of Fuzhou City, Ting Jiang, Zhuoyan Chen; The First Hospital of Xi'an, Manli Cheng,  
20 YuqiangJi; The First People's Hospital of Danzhou, Youhua Zhou, Jvyuan Li; The First People's  
21 Hospital of Guangzhou, Yizhi Pan, Jian Liu; ***The First People's Hospital of Guangyuan,***  
22 Tianxun Wang, Ping Yang; The Fourth People's Hospital of Shangqiu Shi, Guiyu Huang,  
23 JianjunPan, QingliangCai, Qianying Wang; The General Hospital of Yongzhou, Hunan Province,

1 MingliLv; The people's hospital of Wuchuan, Yuanming Yi, Xuelian Deng; The People's  
2 Hospital of Yuanling, Wenhua Chen, RongCai; The People's Hospital of Zhijiang City, Bing  
3 Zhang; The Second Affiliated Hospital of Harbin Medical University, Bo Yu, Yousheng Xu,  
4 Zhengqiu Wang; The Second Affiliated Hospital of Kunming Medical University, Jun Shu, Ge  
5 Zhang, Kai Li; The Second Central Hospital of Baoding City, Guang Ma, PuxiaSuo; The Second  
6 People's Hospital of Liaoyuan City, Aimin Zhang, Yongfen Kang; **Tianjin Medical University**  
7 **General Hospital**, Zheng Wan, Yuemin Sun, Bo Bian; Tibet Autonomous Region People's  
8 Hospital, Xuejun Hu, DawaCiren; Tongchuan Mining Bureau Central Hospital, GuojiongJia,  
9 Jieli Pan; Tongliang County People's Hospital, Guofu Li, Hongliang Zhang, Longliang Zhan;  
10 Tongliao City Horqin District First People's Hospital, Junping Fang, Xinli Yu; Ulanqab Central  
11 Hospital, Dacheng Wang, Dajun Liu, Xinhong Cao; Wencheng County People's Hospital, Yi  
12 Tian, HaishengZhu, Wanchuan Liu; Wuhai People's Hospital, Zhaohai Zhou, Lei Shi; Wuhu  
13 Second People's Hospital, Wuwang Fang, Manxin Chen; Wulate County People's  
14 Hospital, ,FuqinHan, JianyeFu, Yunmei Wang; Wuqiang County People's Hospital, Binglu Liu,  
15 YanliangZhang, Xiupin Yuan; Wuyishan Municipal Hospital, Qingfei Lin, Yun Chen; Xiangtan  
16 County People's Hospital, Yuliang Zhu, ZhiqiangCai; Xing County People's Hospital, Xingping  
17 Li, LirongAo; Xingshan County People's Hospital, Shubing Wu, Hui Zhang; Xinmi First  
18 People's Hospital, Fusheng Zhao, Guangming Yang; Xinshao County People's Hospital, Renfei  
19 Liu, Wenwei Ai; Xiuwu County People's Hospital, JianbaoChang, Haijie Zhao; Xuanhan County  
20 People's Hospital, Qijun Ran, Xuan Ma; Xupu County People's Hospital, Shijun Jiang, Xiaochun  
21 Shu; Yanggao County People's Hospital, Zhiru Peng, Yan Han; Yanqing County Hospital,  
22 Jianbin Wang, Li Yang; Ying County People's Hospital, Yu Shen, Xingcun Shang; Yitong  
23 Manchu Autonomous County First People's Hospital, Haifeng Wang; Yongxing County People's

1 Hospital, Hongyan Li, Zhisong Liao, Yang Cao; Yuanzhou District People's Hospital of Guyuan  
2 City, Xiaoping Gao, MeiyinGai, Lining You; Yuncheng Central Hospital, Xuexin Li, Shuqin  
3 Li, Yingjia Li; Yunlong County People's Hospital, Jianxun Yang, Song Ai, Jianfei Ma; Yuyao  
4 People's Hospital, Lailin Deng; ZhangjiachuanHui Autonomous County First People's Hospital,  
5 Keyu Wang, Shitang Gao, Jian Guan; Zhouning County Hospital, Banghua He, Youyi Lu;  
6 Zhuoni County People's Hospital, Weirong Yang, Hong Li; Zhuozi County People's Hospital,  
7 Zhizhong Zhang, Xiaohong Chi; Zuoyun County People's Hospital, Ru Duan, Guangli Wang.  
8

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