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Data Article

Data in Brief of: Clinical benefits of moxifloxacin as initial treatment of community-acquired pneumonia: Data from meta-analyses



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ABSTRACT

Moxifloxacin and levofloxacin are currently recommended as empirical initial treatment options for community-acquired pneumonia (CAP) in China by clinical guidelines and widely used in clinical settings. Several clinical outcomes comparing the efficacy and safety profiles of moxifloxacin versus levofloxacin through a meta-analysis were reported in paper 'Clinical benefits and cost-effectiveness of moxifloxacin as initial treatment for community-acquired pneumonia: a meta-analysis and economic evaluation'. In this dataset, we aimed at investigating more clinical endpoints comparing the efficacy and safety of moxifloxacin and levofloxacin in the treatment of CAP.

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Specification Table

Subject	Pulmonary and Respiratory Medicine
Specific subject area	Community-acquired pneumonia
Type of data	Table
	Figure
How data were acquired	Data were collected through literature review, and analyzed through Review
	Manager 5.4 (RevMan; The Cochrane Collaboration, 2014) and R (version 3.5.2)
Data format	Analyzed
Parameters for data collection	Sample: community-acquired pneumonia patients using either moxifloxacin or levofloxacin as initial empirical therapeutic drug
	Parameters: drug regimen, enrolled population, age, ethnicity, treatment duration, severity of CAP, response rate during $3 \sim 5$ days of treatment,
	response rate at test-of-cure visit, incidence of any drug-related adverse events, fever release time, cough disappear time, pulmonary rales disappear
	time, shortness of breath release time, duration of \geq 50% improvement in
	radiologic findings, duration of white blood cell (WBC) count decrease to
	normal level, hospital length-of-stay
Description of data collection	Data were collected through literature review
Data source location	China, United States, Argentina, Belgium, Chile, Colombia, Germany, Spain,
	France, United Kingdom, Greece, Israel, Lithuania, Mexico, The Netherlands,
	Peru, Poland, Sweden, South Africa
Data accessibility	In the ARTICLE
Related research article	Du X, Han Y, Jian Y, Chen L, Xuan J, Clinical benefits and cost-effectiveness of
	moxifloxacin as initial treatment for community-acquired pneumonia: a
	meta-analysis and economic evaluation, Clin Ther. In Press.

Value of the Data

- Moxifloxacin and levofloxacin are all recommended for the initial empirical treatment of community-acquired pneumonia by guidelines released by Infectious Diseases Society of America/American Thoracic Society and Chinese Thoracic Society [1,2]. Both of the above antibiotics are widely used in the initial treatment of CAP in clinical settings in China. It is very crucial to select optimal empirical initial anti-infective agents to effectively and safely control the infection, which helps in minimizing mortality and the risk of antibiotic resistance. Our dataset aimed to compare the effectiveness and safety of moxifloxacin and levofloxacin by meta-analysis, aiming to find the preferable antibiotics in the initial treatment of CAP.
- Several clinical trials have compared the efficacy and safety of moxifloxacin and levofloxacin as the initial empirical treatment of CAP, but mostly are single-centered trials and high-quality evidence is still sparse. The pooled data used in the meta-analysis would provide a more precise estimate of the effect size and increases the generalizability of the efficacy and safety outcomes of moxifloxacin and levofloxacin in the treatment of CAP.
- Clinical benefits data of moxifloxacin reported in this Data in Brief paper and its related research article may hopefully give further useful information in choosing anti-infective therapy of CAP.

1. Data Description

This dataset gives details and explanations about the enrolled population, drug regimens and statistical analysis techniques. These data are expressed as figures and tables.

- Table 1 describes the search strategy applied to bibliographic databases in literature search.
- Table 2 describes the characteristics and JADAD score of included RCTs in meta-analysis.
- Table 3 describes the results from meta-analysis.
- Table 4 describes the JADAD score calculation and assessment guideline.

Table 1	l
Search	strategy.

Database	Search Strategy
PubMed	((moxifloxacin [Title/Abstract]) AND (levofloxacin[Title/Abstract]) AND (community-acquired pneumonia[Title/Abstract]))
Embase	(moxifloxacin:ab,ti) AND (levofloxacin:ab,ti) AND ('community-acquired pneumonia':ab,ti)
Cochrane	(moxifloxacin:ab,ti) AND (levofloxacin:ab,ti) AND ('community-acquired pneumonia':ab,ti)
CNKI	((AB=(moxifloxacin+levofloxacin+'community-acquired pneumonia') or
	(II=(III0XIII0XaCIII+IevolioxaCIII+ community-acquired pheumonia))
VIP	((R=(moxifloxacin or levofloxacin or 'community-acquired pneumonia') or (T=(moxifloxacin or))
	levofloxacin or 'community-acquired pneumonia'))
Wanfang	((Abstract=(moxifloxacin or levofloxacin or 'community-acquired pneumonia') or
	(Title=(moxifloxacin or levofloxacin or 'community-acquired pneumonia'))

	Moxifloxacin Levofloxacin			Odds Ratio			Odds Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	Year	M-H, Random, 95% Cl
Anzueto 2006	138	141	126	140	7.6%	5.11 [1.44, 18.20]	2006	
Torres 2008	267	291	260	278	12.6%	0.77 [0.41, 1.45]	2008	
Li 2011	31	32	27	28	2.5%	1.15 [0.07, 19.25]	2011	
Feng 2012	30	32	20	28	5.6%	6.00 [1.15, 31.23]	2012	
Guo 2014	60	65	44	65	9.2%	5.73 [2.00, 16.37]	2014	
Qiu 2016	49	50	36	46	4.0%	13.61 [1.67, 111.17]	2016	
Duan 2016	30	32	26	32	5.4%	3.46 [0.64, 18.65]	2016	
Han 2016	28	30	24	30	5.4%	3.50 [0.65, 18.98]	2016	
Deng 2017	37	39	31	39	5.7%	4.77 [0.94, 24.16]	2017	
Zhao 2018	59	64	48	64	9.0%	3.93 [1.34, 11.51]	2018	
Xiao 2019	46	50	37	50	8.1%	4.04 [1.22, 13.43]	2019	
Gu 2019	51	55	43	55	8.1%	3.56 [1.07, 11.84]	2019	
Li 2019	57	60	52	60	7.0%	2.92 [0.74, 11.61]	2019	
Mu 2019	29	30	23	30	3.8%	8.83 [1.01, 76.96]	2019	· · · ·
Zhou 2020	58	60	49	60	6.0%	6.51 [1.38, 30.79]	2020	
Total (95% CI)		1031		1005	100.0%	3.64 [2.25, 5.90]		◆
Total events	970		846					
Heterogeneity: Tau ² =	0.38; Chi ²	= 25.71	D, df = 14 (P = 0.03	3); I ² = 46	%		
Test for overall effect: Z = 5.25 (P < 0.00001) 0.005 0.1 1 10 Levofloxacin Moxifloxacin								

Fig. 1. Forest plot reporting the clinical response rate of moxifloxacin and levofloxacin in sequential therapy.

- Fig. 1 is the forest plot comparing the clinical response rate of moxifloxacin and levofloxacin in sequential therapy.
- Fig. 2 is the forest plot comparing the clinical response rate of moxifloxacin and levofloxacin at test-of-cure (TOC) visit in the elderly population.
- Fig. 3 is the forest plot comparing the clinical response rate of moxifloxacin and levofloxacin during 3~5 days of treatment in the elderly population.
- Fig. 4 is the forest plot comparing the clinical response rate of moxifloxacin and levofloxacin in the Chinese population.
- Fig. 5 is the forest plot comparing the incidence of drug-related adverse events (gastrointestinal disorders) of moxifloxacin and levofloxacin.
- Fig. 6 is the forest plot comparing the incidence of drug-related adverse events (rash) of moxifloxacin and levofloxacin.
- Fig. 7 is the forest plot comparing the incidence of drug-related adverse events (cardiac events) of moxifloxacin and levofloxacin.
- Fig. 8 is the forest plot comparing the incidence of drug-related adverse events (impaired liver function) of moxifloxacin and levofloxacin.
- Fig. 9 is the forest plot comparing the fever release time of moxifloxacin and levofloxacin.
- Fig. 10 is the forest plot comparing the cough disappear time of moxifloxacin and lev-ofloxacin.
- Fig. 11 is the forest plot comparing the pulmonary rales disappear time of moxifloxacin and levofloxacin.

Table 2

Study characteristics and JADAD score of included RCTs in meta-analysis.

Study	Drug regimens	Enrolled Population	Age (mean±SD)	Treatment duration	Severity of CAP	JADAD score
Zhang 2017 [13]	PO moxifloxacin 0.4 g qd	50	43.51 ± 11.32	10d	-	4
0 1 1	PO levofloxacin 0.1 g bid	50	43.51 ± 11.32	10d	_	
Anzueto 2006 [5]	Sequential IV/PO moxifloxacin 0.4 g/d	141	77.9	7–14d	PSI I-V	4
	Sequential IV/PO levofloxacin	140	77.4	7–14d	PSI I-V	
	0.25–0.5 g/d					
Tang 2010 [28]	PO moxifloxacin 0.4 g/d	56	41.0 ± 1.7	7–14d	-	2
	IV levofloxacin 0.1 g bid	54	40.0 ± 1.5	7–14d	-	
Zhou 2020 [6]	Sequential IV/PO moxifloxacin 0.4 g/d	60	63.28 ± 4.36	7~14d	-	2
	Sequential IV/PO levofloxacin 0.5 g/d	60	62.28 ± 4.37	15d	-	
Lin 2020 [7]	IV moxifloxacin 0.4 g/d	60	52.51 ± 8.94	7d	_	2
	IV levofloxacin 0.5 g/d	60	53.26 ± 9.11	7d	_	
Torres 2008 [4]	Sequential IV/PO moxifloxacin 0.4 g/d	291	66.0 ± 16.2	7–14d	PSI III-V	2
	Sequential IV/PO levofloxacin 0.5 g bid	278	64.8 ± 16.7	7–14d	PSI III-V	
	(in combination with sequential					
	IV/PO ceftriaxone 2 g qd)					
Xiao 2019 [8]	Sequential IV/PO moxifloxacin 0.4 g/d	50	72.10 ± 4.82	14d	_	2
	IV					
	IV Sequential IV/PO levofloxacin 0.5 g/d	50	71.98 ± 5.03	14d	-	
Mu 2019 [9]	Sequential IV/PO moxifloxacin 0.4 g/d	60	75.31 ± 6.12	3~5d	PSI IV-V patients>50%	2
	Sequential IV/PO levofloxacin 0.5 g/d	60	74.31 ± 5.72	3~5d	PSI IV-V patients>50%	
Yang 2014 [22]	IV moxifloxacin 0.4 g qd	92	61.52 ± 4.17	7d	_	2
	IV levofloxacin 0.5 g qd	92	61.42 ± 4.25	7d	_	
Li 2019 [11]	Sequential IV/PO moxifloxacin 0.4 g/d	55	70.39 ± 6.98	14d	_	2
	Sequential IV/PO levofloxacin 0.5 g/d	55	69.37 ± 6.52	14d	_	
Gu 2019 [10]	Sequential IV/PO moxifloxacin0.4 g/d	30	$62.5~\pm~7.4$	10d	-	2
	IV levofloxacin 0.4 g/d	30	60.7 ± 8.7	10d	-	
Zhao 2018 [12]	Sequential IV/PO moxifloxacin 0.4 g/d	64	72.19 ± 5.20	14d	_	2
	Sequential IV/PO levofloxacin 0.5 g/d	64	72.61 ± 5.48	14d	-	
Deng 2017 [14]	Sequential IV/PO moxifloxacin 0.4 g/d	39	70.64 ± 4.57	7–14d	-	2
	Sequential IV/PO levofloxacin 0.2 g/d	39	70.42 ± 4.70	7–14d	-	
	bid					

(continued on next page)

Tab	le 2	2 (1	con	tin	ued)
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Study	Drug regimens	Enrolled Population	Age (mean±SD)	Treatment duration	Severity of CAP	JADAD score
Chen 2017 [15]	IV moxifloxacin 0.4 g/d	30	58.85 ± 5.45	7d	-	2
	IV levofloxacin 100 ml bid	30	58.69 ± 5.88	7d	-	
Zhao 2016 [16]	IV moxifloxacin 0.4 g/d	64	74.22 ± 2.38	7d	-	2
	IV levofloxacin 0.5 g/d	56	73.39 ± 2.19	7d	-	
Qiu 2016 [17]	Sequential IV/PO moxifloxacin 0.4 g/d	50	65.20 ± 4.20	7~14d	_	2
	Sequential IV/PO levofloxacin 0.5 g/d 0.2 g bid	46	64.60 ± 3.70	7~14d	-	
Han 2016 [18]	Sequential IV/PO moxifloxacin 0.4 g/d	30	73.00 ± 5.00	10d	_	2
	PO levofloxacin 0.4 g/d	30		10d	_	
Duan 2016 [19]	Sequential IV/PO moxifloxacin 0.4 g/d	32	74.44 ± 4.92	14d	_	2
	Sequential IV/PO levofloxacin 0.2 g/d	32	74.35 ± 4.86	14d	_	
Chen 2016 [20]	IV moxifloxacin 0.4 g/d	96	78.6 ± 22.7	7d	_	2
	IV levofloxacin 0.5 g/d	45	79.2 ± 26.8	7d	-	
Zhang 2014 [21]	IV moxifloxacin 0.4 g/d	100	71.13 ± 9.33	10d	-	2
	IV levofloxacin 0.4 g/d	100	71.13 ± 9.33	10d	-	
Yuan 2014 [24]	IV moxifloxacin 0.4 g/d	32	64.7 ± 6.4	14d	-	2
	IV levofloxacin 0.5 g/d	32	64.7 ± 6.4	14d	-	
Guo 2014 [23]	Sequential IV/PO moxifloxacin 0.4 g/d	65	$66.3~\pm~7.6$	10d	-	2
	IV levofloxacin 0.4 g/d	65	67.4 ± 8.1	10d	-	
Liu 2012 [25]	IV moxifloxacin 0.4 g/d	33	51.3 ± 15.6	7~14d	mild~moderate	2
	IV levofloxacin 0.4 g/d	32	50.8 ± 15.7	7~14d	mild~moderate	
Feng 2012 [26]	Sequential IV/PO moxifloxacin 0.4 g/d,	32	63.4 ± 5.5	7~14d	-	2
	IV levofloxacin 0.5 g/d	28	62.8 ± 4.9	7d	-	
Shen 2010 [29]	IV moxifloxacin0.4 g/d	75	49.50	7~14d	-	2
	IV levofloxacin 0.2 g/d bid	75	46.20	7~14d	-	
Lin 2007 [30]	IV moxifloxacin 0.4 g/d	33	-	7d	-	2
	IV levofloxacin 0.4 g/d	32	-	7d	-	
Li 2011 [27]	Sequential IV/PO moxifloxacin 0.4 g/d	32	63.4 ± 5.5	7~14d	-	2
	IV levofloxacin 0.5 g/d	28	62.8 ± 4.9	7d	-	

The punctuation "-" in this table indicated that "Severity of CAP" or "Age" didn't reported in orginal article.

IV: intravenous; qd: daily; PO: per os; bid: twice daily; tid: three times daily; PSI: pneumonia severity index; d:day.

Table 3

Results from meta-analysis.

Included trials	Patients	Model	Results	P-value
15	2036	REM	$OR=3.64$ [2.25, 5.90], $I^2=46\%$	<0.01*
6	1315	REM	OR=2.77 [1.24, 6.17], I ² =68%	0.01*
14	2083	REM	OR=3.79 [2.34, 6.15], I ² =50%	<0.01*
25	2551	REM	OR=3.79 [2.88, 5.00], l ² =0%	<0.01*
14	2454	REM	OR=0.96 [0.73, 1.25], l ² =0%	0.74
9	971	REM	OR=0.56 [0.24, 1.32], I ² =0%	0.18
2	1127	FEM	OR=0.83 [0.49, 1.41], I ² =53%	0.49
4	420	REM	OR=1.16 [0.28, 4.79], I ² =0%	0.84
5	488	REM	MD=-1.42 [-2.45, -0.40], I ² =97%	<0.01*
6	548	REM	MD=-1.73 [-2.54, -0.93], I ² =93%	<0.01*
4	360	REM	MD=-1.33 [-2.40, -0.25], I ² =94%	0.02*
2	180	FEM	MD=-4.63 [-4.91, -4.36], I ² =99%	<0.01*
2	244	FEM	MD=-1.88 [-2.55, -1.22], I ² =0%	<0.01*
2	244	FEM	MD=-2.12 [-2.66, -1.59], I ² =0%	<0.01*
3	461	REM	MD=-1.98 [-4.06, 0.11], l ² =92%	0.06
	Included trials 15 6 14 25 14 9 2 4 5 6 4 2 2 2 2 3	Included trials Patients 15 2036 6 1315 14 2083 25 2551 14 2454 9 971 2 1127 4 420 5 488 6 548 4 360 2 180	Included trials Patients Model 15 2036 REM 6 1315 REM 14 2083 REM 25 2551 REM 9 971 REM 2 1127 FEM 4 420 REM 5 488 REM 6 548 REM 2 180 FEM 2 244 FEM 3 461 REM	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$

* P<0.05 level of confidence was interpreted as the differences between moxifloxacin and levofloxacin group are statistically significant result.

^a Sequential therapy is patients start with intravenous moxifloxacin/levofloxacin and then treated with per os moxifloxacin/levofloxacin tablets.

^b Elderly population is patients older than 65-year-old.

Table 4

JADAD score calculation and assessment guideline.

Item	Score
Was the study described as randomized (this includes words such as randomly, random, and randomization)?	0/1
Was the method used to generate the sequence of randomization described and appropriate (table of random numbers, computer-generated, etc.)?	0/1
Was the study described as double blind?	0/1
Was the method of double blinding described and appropriate (identical placebo, active placebo, dummy, etc.)?	0/1
Was there a description of withdrawals and dropouts?	0/1
Assessment Guideline	
Randomization	A method to generate the sequence of randomization will be regarded as appropriate if it allowed each study participant to have the same chance of receiving each intervention and the investigators could not predict which treatment was next. Methods of allocation using date of birth, date of admission, hospital numbers, or alternation should not be regarded as appropriate
Blinding	A study must be regarded as double blind if the word "double blind" is used. The method will be regarded as appropriate if it is stated that neither the person doing the assessments nor the study participant could identify the intervention being assessed, or if in the absence of such a statement the use of active placebos, identical placebos, or dummies is mentioned
Withdrawals and dropouts	Participants who were included in the study but did not complete the observation period or who were not included in the analysis must be described. The number and the reasons for withdrawal in each group must be stated. If there were no withdrawals, it should be stated in the article. If there is no statement on withdrawals, this item must be given no points

	Moxifloxacin Levofloxacin			Odds Ratio			Odds Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	Year	M-H, Random, 95% Cl
Anzueto 2006	138	141	126	140	7.5%	5.11 [1.44, 18.20]	2006	
Torres 2008	267	291	260	278	12.3%	0.77 [0.41, 1.45]	2008	
Yuan 2014	30	32	23	32	5.6%	5.87 [1.16, 29.83]	2014	
Zhang 2014	96	100	82	100	8.5%	5.27 [1.71, 16.19]	2014	
Guo 2014	60	65	44	65	9.0%	5.73 [2.00, 16.37]	2014	
Zhao 2016	60	64	41	56	8.1%	5.49 [1.70, 17.72]	2016	
Chen 2016	85	96	32	45	10.1%	3.14 [1.28, 7.72]	2016	
Duan 2016	30	32	26	32	5.4%	3.46 [0.64, 18.65]	2016	
Han 2016	28	30	24	30	5.4%	3.50 [0.65, 18.98]	2016	
Qiu 2016	49	50	36	46	3.9%	13.61 [1.67, 111.17]	2016	
Deng 2017	37	39	31	39	5.7%	4.77 [0.94, 24.16]	2017	
Li 2019	57	60	52	60	6.9%	2.92 [0.74, 11.61]	2019	
Mu 2019	29	30	23	30	3.8%	8.83 [1.01, 76.96]	2019	
Xiao 2019	46	50	37	50	7.9%	4.04 [1.22, 13.43]	2019	
Total (95% CI)		1080		1003	100.0%	3.79 [2.34, 6.15]		•
Total events	1012		837					
Heterogeneity: Tau ² =	0.39; Chi ^a	= 26.0	6, df = 13 (P = 0.02	2); I ² = 50	%		
Test for overall effect:	Z= 5.41 (F	< 0.00	001)					U.UUS U.1 1 1U 2UU
			-					Levonoxacin Moxinoxacin

Fig. 2. Forest plot reporting the clinical response rate of moxifloxacin and levofloxacin at test-of-cure (TOC) visit in the elderly population.

	Moxiflox	Moxifloxacin Levofloxacin		Odds Ratio			Odds Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	Year	M-H, Random, 95% CI
Anzueto 2006	138	141	126	140	15.9%	5.11 [1.44, 18.20]	2006	
Torres 2008	267	291	260	278	22.6%	0.77 [0.41, 1.45]	2008	
Zhang 2014	96	100	82	100	17.4%	5.27 [1.71, 16.19]	2014	
Chen 2016	85	96	32	45	19.8%	3.14 [1.28, 7.72]	2016	
Duan 2016	30	32	26	32	12.2%	3.46 [0.64, 18.65]	2016	
Han 2016	28	30	24	30	12.1%	3.50 [0.65, 18.98]	2016	
Total (95% CI)		690		625	100.0%	2.77 [1.24, 6.17]		-
Total events	644		550					
Heterogeneity: Tau ² = 0.63; Chi ² = 15.48, df = 5 (P = 0.008); I ² = 68%					%			
Test for overall effect: $Z = 2.49$ (P = 0.01)							U.U.2 U.1 I IU 50	

Fig. 3. Forest plot reporting the clinical response rate of moxifloxacin and levofloxacin during 3~5 days of treatment in the elderly population.

	Moxiflox	acin	Levoflox	acin		Odds Ratio	Odds	Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Rand	lom, 95% Cl
Chen 2016	85	96	32	45	9.4%	3.14 [1.28, 7.72]		
Chen 2017	29	30	21	30	1.7%	12.43 [1.46, 105.74]		
Deng 2017	37	39	31	39	2.9%	4.77 [0.94, 24.16]		<u> </u>
Duan 2016	30	32	26	32	2.7%	3.46 [0.64, 18.65]	-	
Feng 2012	30	32	20	28	2.8%	6.00 [1.15, 31.23]		
Gu 2019	29	30	23	30	1.6%	8.83 [1.01, 76.96]		
Guo 2014	60	65	44	65	6.9%	5.73 [2.00, 16.37]		
Han 2016	28	30	24	30	2.7%	3.50 [0.65, 18.98]	-	
Li 2011	31	32	27	28	1.0%	1.15 [0.07, 19.25]	-	·
Li 2019	51	55	43	55	5.2%	3.56 [1.07, 11.84]		
Lin 2007	30	33	28	32	3.0%	1.43 [0.29, 6.96]		
Lin 2020	56	60	45	60	5.5%	4.67 [1.45, 15.05]		
Liu 2012	19	31	17	30	7.3%	1.21 [0.44, 3.36]	_	
Mu 2019	57	60	52	60	4.0%	2.92 [0.74, 11.61]	-	
Qiu 2016	49	50	36	46	1.7%	13.61 [1.67, 111.17]		
Shen 2010	71	75	69	75	4.4%	1.54 [0.42, 5.71]		•
Tang 2010	53	56	50	54	3.2%	1.41 [0.30, 6.63]		·
Xiao 2019	46	50	37	50	5.3%	4.04 [1.22, 13.43]		
Yang 2014	91	92	71	92	1.8%	26.92 [3.54, 204.93]		
Yuan 2014	30	32	23	32	2.9%	5.87 [1.16, 29.83]		
Zhang 2014	96	100	82	100	6.0%	5.27 [1.71, 16.19]		
Zhang 2017	48	50	42	50	2.9%	4.57 [0.92, 22.73]		
Zhao 2016	60	64	41	56	5.5%	5.49 [1.70, 17.72]		
Zhao 2018	59	64	48	64	6.6%	3.93 [1.34, 11.51]		
Zhou 2020	58	60	49	60	3.1%	6.51 [1.38, 30.79]		
Total (95% CI)		1318		1243	100.0%	3.79 [2.88, 5.00]		•
Total events	1233		981					
Heterogeneity: Tau ² =	0.00; Chi ^a	2 = 20.4	1, df = 24 ((P = 0.6)	7); I ² = 0%	,	0.005 0.1	
Test for overall effect:	Z = 9.49 (I	P < 0.00	0001)				0.000 U.I Levoflovacia	Moviflovacin
							Levonoxacin	WOAHOAdcill

Fig. 4. Forest plot reporting the clinical response rate of moxifloxacin and levofloxacin in the Chinese population.

	Moxifloxacin		Levofloxacin		Odds Ratio			Odds Ratio			
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	Year		M-H, Random, 95% Cl		
Anzueto 2006	14	195	14	199	12.2%	1.02 [0.47, 2.20]	2006				
Lin 2007	2	33	2	32	1.8%	0.97 [0.13, 7.32]	2007	_			
Torres 2008	57	368	55	365	44.3%	1.03 [0.69, 1.54]	2008		-		
Shen 2010	2	75	3	75	2.2%	0.66 [0.11, 4.05]	2010				
Liu 2012	2	33	2	32	1.8%	0.97 [0.13, 7.32]	2012	_			
Guo 2014	4	65	6	65	4.2%	0.64 [0.17, 2.40]	2014	-			
Yuan 2014	3	32	2	32	2.1%	1.55 [0.24, 9.97]	2014			_	
Yang 2014	3	92	4	92	3.1%	0.74 [0.16, 3.41]	2014	_			
Duan 2016	1	32	6	32	1.5%	0.14 [0.02, 1.24]	2016	+			
Chen 2016	3	96	1	45	1.4%	1.42 [0.14, 14.04]	2016	_		_	
Qiu 2016	11	50	10	46	7.7%	1.02 [0.39, 2.68]	2016				
Zhao 2018	7	64	6	64	5.4%	1.19 [0.38, 3.75]	2018				
Mu 2019	11	60	12	60	8.7%	0.90 [0.36, 2.23]	2019				
Lin 2020	4	60	5	60	3.8%	0.79 [0.20, 3.08]	2020				
Total (95% CI)		1255		1199	100.0%	0.96 [0.73, 1.25]			•		
Total events	124		128								
Heterogeneity: Tau ² =	0.00; Chi ^a	= 4.41	df = 13 (F	= 0.99)	; l² = 0%					10	
Test for overall effect:	Z = 0.33 (F	P = 0.74)					0.02 0.1	1 Voflovasin Maviflovasin	10	50
								Lei	volioxaciii Moxilloxaciii		

Fig. 5. Forest plot reporting the incidence of drug-related adverse events (gastrointestinal disorders) of moxifloxacin and levofloxacin.

	Moxifloxacin Levoflo		Levoflox	Levofloxacin Odds Ratio			Odds Ratio			
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Random, 95% Cl		
Guo 2014	0	65	4	65	8.5%	0.10 [0.01, 1.98]	•			
Lin 2007	2	33	3	32	21.2%	0.62 [0.10, 4.00]				
Lin 2020	0	60	1	60	7.1%	0.33 [0.01, 8.21]		•		
Liu 2012	1	32	2	32	12.2%	0.48 [0.04, 5.62]	-			
Mu 2019	0	60	3	60	8.2%	0.14 [0.01, 2.69]	•			
Qiu 2016	2	50	0	46	7.8%	4.79 [0.22, 102.54]			\rightarrow	
Yang 2014	1	92	1	92	9.4%	1.00 [0.06, 16.23]				
Yuan 2014	0	32	1	32	7.0%	0.32 [0.01, 8.23]				
Zhao 2018	2	64	2	64	18.5%	1.00 [0.14, 7.33]				
Total (95% CI)		488		483	100.0%	0.56 [0.24, 1.32]		-		
Total events	8		17							
Heterogeneity: Tau² = 0.00; Chi² = 4.77, df = 8 (P = 0.78); l² = 0% Test for overall effect: Z = 1.33 (P = 0.18)								0.1 1 10 Levofloxacin Moxifloxacin	100	

Fig. 6. Forest plot reporting the incidence of drug-related adverse events (rash) of moxifloxacin and levofloxacin.

	Moxifloxacin Levofloxacin			Odds Ratio			Odds Ratio			
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% Cl		M-H, Fixed, 9	5% CI	
Anzueto 2006	2	195	7	199	22.7%	0.28 [0.06, 1.39]				
Torres 2008	25	368	25	365	77.3%	0.99 [0.56, 1.76]				
Total (95% CI)		563		564	100.0%	0.83 [0.49, 1.41]		•		
Total events	27		32							
Heterogeneity: Chi ² =	2.12, df =	1 (P = 0)	.14); I² = 5		0.01	0.1 1	10	100		
Test for overall effect: $Z = 0.69$ (P = 0.49)								Levofloxacin Mo:	xifloxacin	

Fig. 7. Forest plot reporting the incidence of drug-related adverse events (cardiac events) of moxifloxacin and lev-ofloxacin.

	Moxifloxacin Levofloxacin		Odds Ratio		Odds Ratio			
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl	
Chen 2016	2	95	0	45	21.6%	2.43 [0.11, 51.74]		
Lin 2007	1	33	1	32	25.4%	0.97 [0.06, 16.18]		-
Liu 2012	1	33	2	32	33.5%	0.47 [0.04, 5.44]		
Shen 2010	1	75	0	75	19.5%	3.04 [0.12, 75.83]		
Total (95% CI)		236		184	100.0%	1.16 [0.28, 4.79]	-	
Total events	5		3					
Heterogeneity: Tau ² =	0.00; Chi ^a	² = 1.11,			100			
Test for overall effect:	Z = 0.20 (I	P = 0.84		Levofloxacin Moxifloxacin	100			

Fig. 8. Forest plot reporting the incidence of drug-related adverse events (impaired liver function) of moxifloxacin and levofloxacin.

	Moxifloxacin Levofloxacin			in		Mean Difference		Mean Difference			
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	Year	IV, Random, 95% Cl	
Yang 2014	2.37	0.96	92	3.89	1.64	92	20.2%	-1.52 [-1.91, -1.13]	2014		
Duan 2016	3.23	0.81	32	2.75	0.66	32	20.3%	0.48 [0.12, 0.84]	2016		
Chen 2017	2.51	1.08	30	4.05	1.22	30	19.5%	-1.54 [-2.12, -0.96]	2017	_ _	
Gu 2019	2.5	0.7	30	5.1	1.5	30	19.4%	-2.60 [-3.19, -2.01]	2019	_ _	
Zhou 2020	1.66	0.66	60	3.63	0.37	60	20.6%	-1.97 [-2.16, -1.78]	2020	+	
Total (95% CI)			244			244	100.0%	-1.42 [-2.45, -0.40]			
Heterogeneity: Tau ² = 1.32; Chi ² = 151.24, df = 4 (P < 0.00001); l ² = 97%							² = 97%			-4 -2 0 2 4	
Test for overall effect: Z = 2.72 (P = 0.007)										Favours moxifloxacin Favours levofloxacin	

Fig. 9. Forest plot reporting the fever release time of moxifloxacin and levofloxacin.

	Moxifloxacin Levofloxacin				in	Mean Difference Mean Difference				
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% Cl	
Chen 2017	5.39	2.11	30	8.02	2.12	30	14.1%	-2.63 [-3.70, -1.56]		
Duan 2016	5.43	1.65	32	4.62	1.28	32	16.3%	0.81 [0.09, 1.53]		
Gu 2019	3	0.8	30	5.6	0.9	30	17.8%	-2.60 [-3.03, -2.17]	- -	
Yang 2014	5.36	1.73	92	7.68	2.65	92	16.8%	-2.32 [-2.97, -1.67]	_ _	
Zhao 2016	2.12	0.4	64	3.61	0.57	56	18.6%	-1.49 [-1.67, -1.31]	+	
Zhou 2020	3.56	1.67	30	5.78	1.11	30	16.4%	-2.22 [-2.94, -1.50]	_ -	
Total (95% CI)			278			270	100.0%	-1.73 [-2.54, -0.93]	-	
Heterogeneity: Tau ² = 0.90; Chi ² = 75.84, df = 5 (P < 0.00001); l ² = 93%							= 93%			1
Test for overall effect: Z = 4.21 (P < 0.0001)									Eavours moxifloxacin Eavours levofloxacin	

Fig. 10. Forest plot reporting the cough disappear time of moxifloxacin and levofloxacin.



Fig. 11. Forest plot reporting the pulmonary rales disappear time of moxifloxacin and levofloxacin.



Fig. 12. Forest plot reporting the shortness of breath release time of moxifloxacin and levofloxacin.



Fig. 13. Forest plot reporting the duration of \geq 50% improvement in radiologic findings of moxifloxacin and levofloxacin.

	Moxifloxacin Levofloxacin				cin		Mean Difference		Mean Difference			
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% Cl	Year	IV, Fixed, 95% Cl		
Yang 2014	4.23	1.78	92	6.42	2.35	92	78.5%	-2.19 [-2.79, -1.59]	2014			
Chen 2017	4.37	2.3	30	6.25	2.25	30	21.5%	-1.88 [-3.03, -0.73]	2017			
Total (95% CI)			122			122	100.0%	-2.12 [-2.66, -1.59]		◆		
Heterogeneity: Chi ² = 0.22, df = 1 (P = 0.64); l ² = 0%										-4 -2 0 2 4		
l est for overall effect: Z = 7.80 (P < 0.00001)										Eavours moxifloxacin Eavours levofloxacin		

Fig. 14. Forest plot comparing the duration of WBC count decrease to normal level of moxifloxacin and levofloxacin.



Fig. 15. Forest plot reporting the hospital length-of-time of moxifloxacin and levofloxacin.

- Fig. 12 is the forest plot comparing the shortness of breath release time of moxifloxacin and levofloxacin.
- Fig. 13 is the forest plot comparing the duration of \geq 50% improvement in radiologic findings of moxifloxacin and levofloxacin.
- Fig. 14 is the forest plot comparing the duration of WBC count decrease to normal level of moxifloxacin and levofloxacin.
- Fig. 15 is the forest plot comparing the hospital length-of-time of moxifloxacin and levofloxacin.
- Fig. 16 is the forest plot demonstrating the independent clinical response rate of moxifloxacin (A) and levofloxacin (B) at TOC visit calculated from single arm meta-analysis.

						Weight	Weight
Study	Events	Total		Proportion	95%-CI	(fixed)	(random)
Anzueto 2006	123	140		0.8786	[0.8127; 0.9276]	9.7%	5.3%
Chen 2016	32	45		0.7111	[0.5569; 0.8363]	1.6%	3.1%
Chen 2017	21	30		0.7000	[0.5060; 0.8527]	1.1%	2.5%
Deng 2017	31	39		0.7949	[0.6354; 0.9070]	1.8%	3.2%
Duan 2016	26	32		0.8125	[0.6356; 0.9279]	1.6%	3.0%
Feng 2012	20	28	· · · · · · · · · · · · · · · · · · ·	0.7143	[0.5133; 0.8678]	1.0%	2.4%
Gu 2019	23	30		0.7667	[0.5772; 0.9007]	1.2%	2.7%
Guo 2014	44	65		0.6769	[0.5495; 0.7877]	2.2%	3.6%
Han 2016	24	30		0.8000	[0.6143; 0.9229]	1.4%	2.9%
Li 2011	27	28		0.9643	[0.8165; 0.9991]	6.0%	4.8%
Li 2019	43	55		0.7818	[0.6499; 0.8819]	2.4%	3.7%
Lin 2007	28	32		0.8750	[0.7101; 0.9649]	2.2%	3.5%
Lin 2020	45	60		0.7500	[0.6214; 0.8528]	2.4%	3.7%
Liu 2012	17	30		0.5667	[0.3743; 0.7454]	0.9%	2.2%
Mu 2019	52	60		0.8667	[0.7541; 0.9406]	3.9%	4.3%
Qiu 2016	36	46		0.7826	[0.6364; 0.8905]	2.0%	3.4%
Shen 2010	69	75	 	0.9200	[0.8340; 0.9701]	7.6%	5.1%
Tang 2010	50	54		0.9259	[0.8211; 0.9794]	5.8%	4.8%
Torres 2008	250	278		0.8993	[0.8577; 0.9320]	22.8%	5.7%
Xiao 2019	37	50		0.7400	[0.5966; 0.8537]	1.9%	3.4%
Yang 2014	71	92		0.7717	[0.6725; 0.8528]	3.9%	4.3%
Yuan 2014	23	32		0.7188	[0.5325; 0.8625]	1.2%	2.6%
Zhang 2014	82	100	<u> </u>	0.8200	[0.7305; 0.8897]	5.0%	4.7%
Zhang 2017	42	50		0.8400	[0.7089; 0.9283]	2.8%	3.9%
Zhao 2016	41	56		0.7321	[0.5970; 0.8417]	2.1%	3.5%
Zhao 2018	48	64		0.7500	[0.6260; 0.8498]	2.5%	3.8%
Zhou 2020	49	60		0.8167	[0.6956; 0.9048]	3.0%	4.0%
Fixed effect model		1661	\$	0.8470	[0.8302; 0.8639]	100.0%	
Random effects mode				0.8083	[0.7751; 0.8415]		100.0%
Heterogeneity: $I^2 = 68.939$	$\%, \tau^2 = 0.0$	047, p <	0.01				
			0.4 0.5 0.6 0.7 0.8 0.9				

						Weight	Weight
Study	Events	Total	1	Proportion	95%-CI	(fixed)	(random)
Anzueto 2006	123	140		0.8786	[0.8127; 0.9276]	9.7%	5.3%
Chen 2016	32	45		0.7111	[0.5569; 0.8363]	1.6%	3.1%
Chen 2017	21	30		0.7000	[0.5060; 0.8527]	1.1%	2.5%
Deng 2017	31	39		0.7949	[0.6354; 0.9070]	1.8%	3.2%
Duan 2016	26	32	<u>+</u>	0.8125	[0.6356; 0.9279]	1.6%	3.0%
Feng 2012	20	28		0.7143	[0.5133; 0.8678]	1.0%	2.4%
Gu 2019	23	30		0.7667	[0.5772; 0.9007]	1.2%	2.7%
Guo 2014	44	65		0.6769	[0.5495; 0.7877]	2.2%	3.6%
Han 2016	24	30		0.8000	[0.6143; 0.9229]	1.4%	2.9%
Li 2011	27	28		0.9643	[0.8165; 0.9991]	6.0%	4.8%
Li 2019	43	55		0.7818	[0.6499; 0.8819]	2.4%	3.7%
Lin 2007	28	32		0.8750	[0.7101; 0.9649]	2.2%	3.5%
Lin 2020	45	60		0.7500	[0.6214; 0.8528]	2.4%	3.7%
Liu 2012	17	30	! !	0.5667	[0.3743; 0.7454]	0.9%	2.2%
Mu 2019	52	60		0.8667	[0.7541; 0.9406]	3.9%	4.3%
Qiu 2016	36	46		0.7826	[0.6364; 0.8905]	2.0%	3.4%
Shen 2010	69	75	+	0.9200	[0.8340; 0.9701]	7.6%	5.1%
Tang 2010	50	54		0.9259	[0.8211; 0.9794]	5.8%	4.8%
Torres 2008	250	278		0.8993	[0.8577; 0.9320]	22.8%	5.7%
Xiao 2019	37	50		0.7400	[0.5966; 0.8537]	1.9%	3.4%
Yang 2014	71	92		0.7717	[0.6725; 0.8528]	3.9%	4.3%
Yuan 2014	23	32		0.7188	[0.5325; 0.8625]	1.2%	2.6%
Zhang 2014	82	100		0.8200	[0.7305; 0.8897]	5.0%	4.7%
Zhang 2017	42	50		0.8400	[0.7089; 0.9283]	2.8%	3.9%
Zhao 2016	41	56		0.7321	[0.5970; 0.8417]	2.1%	3.5%
Zhao 2018	48	64		0.7500	[0.6260; 0.8498]	2.5%	3.8%
Zhou 2020	49	60		0.8167	[0.6956; 0.9048]	3.0%	4.0%
Fixed effect model		1661	\$	0.8470	[0.8302; 0.8639]	100.0%	
Random effects model				0.8083	[0.7751; 0.8415]		100.0%
Heterogeneity: 12 = 68.93%	$6, \tau^2 = 0.00$	047, p <	0.01		-		
- /			04 05 06 07 08 09				

Fig. 16. Forest plot reporting the independent clinical response rate of moxifloxacin (A) and levofloxacin (B) at TOC visit calculated from single arm meta-analysis.



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Study	Events	Total		Proportion	95%-CI	Weight (fixed)	Weight (random)
Anzueto 2006	138	141	÷.	0.9787	[0.9391; 0.9956]	34.9%	20.9%
Torres 2008	267	291		0.9175	[0.8798; 0.9464]	19.8%	17.0%
Shen 2010	71	75		0.9467	[0.8690; 0.9853]	7.7%	10.2%
Tang 2010	53	56		0.9464	[0.8513; 0.9888]	5.7%	8.3%
Li 2011	31	32		- 0.9688	[0.8378; 0.9992]	5.5%	8.1%
Feng 2012	30	32		0.9375	[0.7919; 0.9923]	2.8%	4.8%
Zhang 2014	96	100		0.9600	[0.9007; 0.9890]	13.4%	14.2%
Chen 2016	85	96		0.8854	[0.8042; 0.9414]	4.9%	7.4%
Han 2016	28	30 -		0.9333	[0.7793; 0.9918]	2.5%	4.3%
Duan 2016	30	32	*	0.9375	[0.7919; 0.9923]	2.8%	4.8%
Fixed effect model		885	-	0.9512	[0.9372; 0.9653]	100.0%	
Random effects mode	1		~	0.9460	[0.9260; 0.9661]		100.0%
Heterogeneity: I ² = 38.049	$6, \tau^2 = 0.0$	004, p =	0 1 1 1				
			3 0.85 0.9 0.95				

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Study	Events	Total		Proportion	95%-CI	(fixed)	(random)
Anzueto 2006	126	140	<u> </u>	0.9000	[0.8379; 0.9442]	15.3%	13.9%
Torres 2008	260	278	÷	0.9353	[0.8996; 0.9612]	45.0%	15.9%
Shen 2010	69	75	m	0.9200	[0.8340; 0.9701]	10.0%	12.6%
Tang 2010	50	54	x	0.9259	[0.8211; 0.9794]	7.7%	11.7%
Li 2011	27	28		0.9643	[0.8165; 0.9991]	8.0%	11.8%
Feng 2012	20	28 -		0.7143	[0.5133; 0.8678]	1.3%	4.6%
Zhang 2014	82	100		0.8200	[0.7305; 0.8897]	6.6%	11.1%
Chen 2016	32	45		0.7111	[0.5569; 0.8363]	2.1%	6.4%
Han 2016	24	30		0.8000	[0.6143; 0.9229]	1.8%	5.8%
Duan 2016	26	32		0.8125	[0.6356; 0.9279]	2.1%	6.2%
Fixed effect model		810	\$	0.9095	[0.8901; 0.9289]	100.0%	
Random effects model Heterogeneity: $I^2 = 69.44\%$	$t_{0}^{2}, \tau^{2} = 0.0$	027, p <	0.01	0.8780	[0.8358; 0.9202]	-	100.0%
			0.6 0.7 0.8 0.9				

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Fig. 17. Forest plot resporting the independent clinical response rate of moxifloxacin (A) and levofloxacin (B) during 3~5 days of treatment calculated from single arm meta-analysis.

- Fig. 17 is the forest plot demonstrating the independent clinical response rate of moxifloxacin (A) and levofloxacin (B) during 3~5 days of treatment calculated from single arm metaanalysis.
- Fig. 18 is the forest plot demonstrating the independent clinical response rate of moxifloxacin (A) and levofloxacin (B) at TOC visit in the elderly population calculated from single arm meta-analysis.
- Fig. 19 is the forest plot demonstrating the independent clinical response rate of moxifloxacin (A) and levofloxacin (B) during 3~5 days of treatment in the elderly population calculated from single arm meta-analysis.

2. Experimental Design, Materials and Methods

In the related research, a meta-analysis was performed to compare the efficacy and safety profiles of moxifloxacin and levofloxacin in the treatment of community-acquired pneumonia. To begin with, search strategies were developed and applied to 6 electronic bibliographic databases (CNKI, CSTJ-VIP, Wanfang, PubMed, Embase, and Cochrane Library) for publications from January 2000 to August 2020, using search terms 'moxifloxacin', 'levofloxacin' and 'community-acquired

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						Weight	Weight
Study	Events	Total		Proportion	95%-CI	(fixed)	(random)
Anzueto 2006	138	141		0.9787	[0.9391; 0.9956]	28.2%	17.6%
Torres 2008	267	291		0.9175	[0.8798; 0.9464]	16.0%	13.7%
Zhang 2014	96	100		0.9600	[0.9007: 0.9890]	10.9%	11.0%
Guo 2014	60	65		0.9231	[0.8295: 0.9746]	3.8%	5.2%
Yuan 2014	30	32		0.9375	[0.7919; 0.9923]	2.3%	3.3%
Han 2016	28	30		0.9333	[0.7793; 0.9918]	2.0%	3.0%
Qiu 2016	49	50		0.9800	[0.8935; 0.9995]	10.6%	10.9%
Zhao 2016	60	64		0.9375	[0.8476: 0.9827]	4.6%	6.0%
Duan 2016	30	32		0.9375	[0.7919; 0.9923]	2.3%	3.3%
Chen 2016	85	96		0.8854	[0.8042; 0.9414]	3.9%	5.3%
Deng 2017	37	39		0.9487	[0.8268: 0.9937]	3.3%	4.6%
Li 2019	57	60	¥	0.9500	[0.8608; 0.9896]	5.3%	6.7%
Xiao 2019	46	50		0.9200	10.8077: 0.97781	2.8%	4.0%
Mu 2019	29	30		0.9667	[0.8278; 0.9992]	3.9%	5.3%
Fixed effect model		1080	\$	0.9519	[0.9392; 0.9645]	100.0%	
Random effects model			<u> </u>	0.9477	[0.9313; 0.9640]		100.0%
Heterogeneity: $I^2 = 28.06\%$	$t_{0}, \tau^{2} = 0.0$	002, p =	0.15				
-			0.8 0.85 0.9 0.95				

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			_		weight	weight
Study	Events	Total	Proportion	95%-CI	(fixed)	(random)
Anzueto 2006	126	140	0.9000	[0.8379; 0.9442]	16.1%	9.7%
Torres 2008	260	278	0.9353	[0.8996; 0.9612]	47.6%	10.3%
Zhang 2014	82	100	0.8200	[0.7305; 0.8897]	7.0%	8.7%
Guo 2014	44	65	0.6769	[0.5495; 0.7877]	3.1%	7.0%
Yuan 2014	23	32	0.7188	[0.5325; 0.8625]	1.6%	5.4%
Han 2016	24	30	0.8000	[0.6143; 0.9229]	1.9%	5.9%
Qiu 2016	36	46	0.7826	[0.6364; 0.8905]	2.8%	6.8%
Zhao 2016	41	56	0.7321	[0.5970; 0.8417]	3.0%	6.9%
Duan 2016	26	32		[0.6356; 0.9279]	2.2%	6.2%
Chen 2016	32	45	0.7111	[0.5569; 0.8363]	2.3%	6.3%
Deng 2017	31	39	0.7949	[0.6354; 0.9070]	2.5%	6.5%
Li 2019	52	60	0.8667	[0.7541; 0.9406]	5.4%	8.2%
Xiao 2019	37	50	0.7400	[0.5966; 0.8537]	2.7%	6.7%
Mu 2019	23	30	0.7667	[0.5772; 0.9007]	1.7%	5.6%
Fixed effect model		1003	0.8739	[0.8539; 0.8938]	100.0%	
Random effects model			0.8009	[0.7491; 0.8526]		100.0%
Heterogeneity: /2 = 78.10%	$\tau^2 = 0.0$	066, p <	0.01			
			0.6 0.7 0.8 0.9			

Fig. 18. Forest plot reporting the independent clinical response rate of moxifloxacin (A) and levofloxacin (B) at TOC visit in the elderly population calculated from single arm meta-analysis.

pneumonia' in the title, abstract or keywords (shown in Table 1). The literature search for metaanalysis was limited to randomized controlled trials, and eligible participants were adult patients with a confirmed diagnosis of CAP treated with moxifloxacin and levofloxacin. Language restrictions were English and Chinese.

Three reviewers (XD, YJ, and LC) independently searched the literature and examined all relevant studies. Trials that fulfilled the following inclusion criteria were included in the metaanalysis: (1) comparison of efficacy and safety of moxifloxacin and levofloxacin in adult patients with CAP; (2) study is a randomized controlled trial; (3) study reported clinical efficacy and safety data (including but not limited to clinical cure rate, bacteriological eradication rate, AEs); (4) moxifloxacin was used as monotherapy. Retrospective, pharmacokinetic, pharmacodynamic studies, clinical practice guidelines, animal models, or literature reviews were excluded. We also excluded studies in which moxifloxacin was not used as an initial treatment.

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Fig. 19. Forest plot reporting the independent clinical response rate of moxifloxacin (A) and levofloxacin (B) during 3~5 days of treatment in the elderly population calculated from single arm meta-analysis.

For included trials, extracted data included study details (trial design, country, publication date, and sample size), participant demographics (age, gender, ethnicity, and disease severity), interventions (dosage, treatment duration), and clinical outcomes reported (efficacy and safety). The methodological quality of the RCTs included in the meta-analysis was rated using the JADAD scoring system by two reviewers independently (YJ and LC). JADAD scoring system assesses each article by answering five questions with the following domains: randomization, blinding, and withdrawal. One point will be added for a "yes" answer to each of the five questions, for an overall score of $0 \sim 5$ [3]. In this study, trials with JADAD score lower than 2 were excluded. Table 2 displays the study characteristics and their JADAD score.

Data synthesis and statistical analyses were performed using Review Manager 5.4 (RevMan; The Cochrane Collaboration, 2014). Dichotomous data and continuous data were analyzed using odd ratio (OR) and mean difference (MD) respectively with 95% confidence interval (CI). Pooled results and 95% CIs were calculated by Mantel-Haenszel fixed effects model (FEM) only when analyses included trials fewer than three; otherwise, results were calculated using DerSimonian-Laird random effects model (REM).

Heterogeneity between trials was assessed using the chi-square and l^2 tests. Mild, moderate, and significant heterogeneity was determined by the l^2 value for < 25%, 25% \sim 50%, and > 50%, respectively.

Moreover, single arm meta-analysis was also performed by R software (version 3.5.2) to obtain the independent clinical response rates of moxifloxacin and levofloxacin during $3\sim5$ days of treatment and at TOC visit. The relevant R code is provided below.

```
library(meta)
   librarv(readxl)
   rate <- read_excel("rate.xlsx")</pre>
   transform(X3_5_lev, p = \text{Event/n},
     \log = \log(Event/n),
     logit = log((Event/n)/(1-Event/n)),
     \arcsin=asin(sqrt(Event/(n + 1))),
     darcsin = 0.5^{(asin(sqrt(Event/(n + 1)))+asin(sqrt((Event+1)/(n + 1))))} > X3_5_lev
   shapiro.test (X3_5_lev$p)
   shapiro.test (X3_5_lev$log)
   shapiro.test (X3_5_lev$logit)
   shapiro.test (X3_5_lev$arcsin)
   shapiro.test (X3_5_lev$darcsin)
   metarate <-
   metaprop(Event,n,Study,data = X3_5_lev,sm = "Praw",incr = 0.5,allincr = TRUE,addincr =
FALSE, title = "")
   forest(metarate, digits = 4, digits. I2 = 2)
```

Ethics Statement

None.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Supplementary Materials

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.dib.2021.107352.

CRediT Author Statement

Xiwen Du: Project administration, Validation, Writing – original draft; Yi Han: Conceptualization, Methodology; Yifei Jian: Software, Visualization; Liping Chen: Formal analysis, Visualization; Jianwei Xuan: Validation, Writing – review & editing.

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