

# Are NICE Clinical Practice Guidelines (CPGs) being followed in regards to the management of febrile infants?

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## Introduction

- 10-20% febrile infants have a SBI (1)
- Differentiating SBI from self-limiting illnesses is challenging.
- NICE CPGs aim to standardise care and support risk stratification (2).
- What is adherence like in real-world settings, particularly in ambiguous presentations?

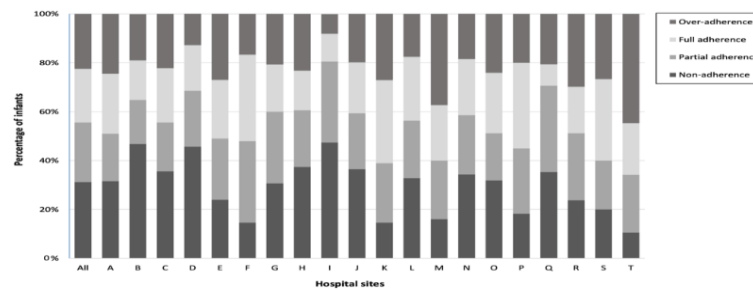
## Methods

- Retrospective, multicentre, observational study 2008 febrile infants
- At 21 hospitals, REACH Network (3)
- Inclusion: infants <90 days, fever, presented to ED between 2021- 2022,
- Outcome : adherence to NICE CPGs

	Full adherence		Non-adherence		Partial adherence		Over-adherence		n/a
	Lower risk group	Higher risk group	Lower risk group	Higher risk group	Lower risk group	Higher risk group	Lower risk group	Higher risk group	
CRP	Yes	Yes	No	0-3	0-3	Yes	Yes		
WCC	Yes	Yes	No	0-3	0-3	Yes	Yes		
Blood culture	Yes	Yes	No	0-3	0-3	Yes	Yes		
Urine dip / MC&S	Yes	Yes	No			Yes	Yes		
LP	no	Yes	n/a	n/a	n/a	0-1	1-2		
Parenteral antibiotics		Yes				Yes	Yes		

## Results

- Full adherence 21.9% (range 8.8-35.4%),
- Partial adherence in 24.4% (18.0-35.3%),
- Non-adherence in 31.2% (10.6-47.4%),
- Over-adherence in 23.5% (8.0-44.7%).



Guideline domain	Guideline standard	Whole cohort actual/expected (%)	Febrile during assessment actual/expected (%)	Afebrile during assessment actual/expected (%)
<b>(A) NICE NG 143 Fever in under 5s: assessment and initial management</b>				
FBC	All aged <3 months	1479/2008 (73.7%)	717/826 (86.8%)	762/1182 (64.5%)
CRP	All aged <3 months	1488/2008 (74.1%)	718/826 (86.9%)	770/1182 (65.1%)
Blood culture	All aged <3 months	1252/2008 (62.4%)	650/826 (78.7%)	602/1182 (50.9%)
Urine	All aged <3 months	1273/2008 (63.4%)	616/826 (74.6%)	657/1182 (55.6%)
Stool	If diarrhoea present	37/201 (18.4%)	17/72 (23.6%)	20/129 (15.5%)
Lumbar puncture	All aged <1 month	253/450 (56.2%)	146/182 (80.2%)	107/268 (39.9%)
	Appear unwell, aged >1 month	46/65 (70.8%)	32/41 (78.0%)	14/24 (58.3%)
	WCC<5 or >15, aged >1 month	204/339 (60.2%)	115/167 (68.9%)	89/172 (51.7%)
	Any indication above	484/833 (58.1%)	279/375 (74.4%)	205/458 (44.8%)
Chest Xr	If respiratory signs present	40/111 (36.0%)	21/54 (38.9%)	19/57 (33.3%)
IV antibiotics	All aged <1 month	305/450 (67.8%)	167/182 (91.8%)	138/268 (51.5%)
	Appear unwell, aged >1 month	58/65 (89.2%)	38/41 (92.7%)	20/24 (83.3%)
	WCC <5 or >15, aged >1 month	271/339 (79.9%)	139/167 (83.2%)	132/172 (76.7%)
	Any indication above	614/833 (73.7%)	329/375 (87.7%)	285/458 (62.2%)

	Full adherence	Partial adherence	Non-adherence	Over-adherence
Whole cohort	440/2008 21.9%	490/2008 24.4%	627/2008 31.2%	451/2008 22.5%
Whole cohort - fever measured in hospital	246/826 29.8%	185/826 22.4%	156/826 18.9%	239/826 28.9%
Whole cohort - fever reported at home only	194/1182 16.4%	305/1882 25.8%	471/1182 39.8%	212/1182 17.9%
<28 days of age	213/450 47.3%	59/450 13.1%	178/450 39.6%	n/a n/a
<28 days of age - fever measured in hospital	125/182 68.7%	23/182 12.6%	34/182 18.7%	n/a n/a
<28 days of age - fever reported at home only	88/268 32.8%	36/268 13.4%	144/268 53.7%	n/a n/a
≥28 days of age	227/1558 14.6%	431/1558 27.7%	449/1558 28.8%	451/1558 28.9%
≥28 days of age - fever measured in hospital	121/644 18.8%	162/644 25.2%	122/644 18.9%	239/644 37.1%
≥28 days of age - fever reported at home only	106/914 11.6%	269/914 29.4%	327/914 35.8%	212/914 23.2%
<b>Afebrile during assessment</b>				
With appropriate* thermometer used at home**	64/292 21.9%	83/292 28.4%	73/292 25.0%	72/292 24.7%
With inappropriate thermometer used at home	31/299 10.4%	160/299 53.5%	77/299 25.8%	31/299 10.4%
With antipyretics*** given at home****	34/297 11.4%	119/297 40.1%	82/297 27.6%	62/297 20.9%
With no antipyretics given at home	99/529 18.7%	198/529 37.4%	134/529 25.3%	98/529 18.5%

## Conclusion

- Limited adherence to guidelines.
- Adherence higher for febrile infants at the time of assessment, for infants < 28 days
- > Focus on refining and updating decision models and CPGs so that guideline adherence can be improved,

## References

1. Kuppermann, N., et al 2019 A Clinical Prediction Rule to identify febrile infants 60 days and younger at low risk of serious bacterial infections JAMA Paediatrics 173(4), 342,
2. NICE guideline (2021) Fever in under 5s: assessment and initial management: NICE National Institute for Care and Health Excellence
3. Loucaides E et al 2025 Research exposure in UK paediatric training: how do we address the gaps- experience from the London REACH network. Archives of Disease in Childhood 110 (4) 256-264.