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Title: The influence of acute bronchiolitis in infancy on later quality of life

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Body: Stress and reduced quality of life is associated with later allergic disease, with acute bronchiolitis as an asthma risk factor. Aims: To evaluate the role of acute bronchiolitis for quality of life (QoL) nine months later. Methods: An infant QoL questionnaire (ITQOL™) with 13 domains was sent to 644 and received from parents of 415 children, mean age (standard deviation) 5.2 (3.3) months, 209 who were hospitalised with acute bronchiolitis and a control group (mean ages 4.0 (2.8) and 6.4 (3.4) months, respectively). Analyses by robust regression included age at hospitalisation, gender, hospitalisation for bronchiolitis and severity given by length of hospital stay, nasogastric tube feeding, oxygen therapy, ventilation support and clinical score. Results: Hospitalisation was associated with significantly reduced QoL in four domains (overall health, general behaviour, general health and change in health) (all p<0.05). Increasing severity of bronchiolitis negatively influenced seven domains (p<0.05-<0.0001), with greatest impact on parental time (beta (95% confidence interval) -6.7 (-11.8, -1.6)). Conclusion: Acute bronchiolitis and disease severity are associated with reduced QoL nine months later.

QoL in children after bronchiolitis vs. control children (95 % C.I.) age and gender adjusted

QoL domains	Overall Health (n=380)	General Behaviour (n=270)	General Health (n=410)	Change Health (n=258)
Mean score all children	86.0 (84.4, 87.6)	87.5 (86.2, 88.8)	74.3 (72.8, 75.8)	3.4 (3.2, 3.5)
Regression coefficient	-6.3 (-9.0,-3.7)**	-3.0 (-5.6, -0.5)*	-11.3 (-14.0,	0.2 (0.0, 2.4)*

bronchiolitis=1 vs. controls=0				-8.7)**	
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Range Change Health 1-5; otherwise 0-100. Increasing scores for better QoL. *0.01 < p < 0.05 **p < 0.0001