




Information sheet

Information for patients and parents

1. Urinary tract infections (UTIs)

Symptoms and measures according to the traffic light system

1.1 Traffic light system: observations and measures

Traffic light	Urine	Symptoms	Measures
	No abnormality	Good general condition	None
	Conspicuous Cloudy, flaky, strong-smelling, unusual colour	Good general condition	<ul style="list-style-type: none"> – Increase fluid intake – Empty bladder more often – In case of repeated catheterisation, at least 1-2 times more a day than usual – If required, flush the bladder 2 times/day (instruction through nursing consultation) – As long as no symptoms arise, a doctor's visit is not necessary
	Critical Cloudy, flaky, strong-smelling, unusual colour	Abnormalities such as: Point 1.2 b <ul style="list-style-type: none"> – Discomfort, unease, whining – Sucking weakness, loss of appetite – Fever, pain in flanks – Increase of incontinence, spasticity, goose bumps, reddened face 	<ul style="list-style-type: none"> – Doctor's visit for the removal of urine – Information to the Children's Hospital, including existing results from laboratory

We are gladly available in case of questions:

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1.2 Definition of urinary tract infection (UTI)

A urinary tract infection (UTI) is an inflammation of the urinary tract (renal pelvis, ureter, bladder or urethra). A differentiation is made between **a) UTI without symptoms** (asymptomatic) and **b) UTI with symptoms or UTI with fever** (symptomatic).

a) UTI without symptoms (asymptomatic)

Symptoms of an incipient UTI are cloudy, flaky, bloody and/or strong-smelling urine. If bacteria are in the urine without symptoms such as fever, discomfort, fatigue and sucking weakness, this is referred to as bacteriuria. Bacteria in the urine do not necessarily cause an infection. That is why UTIs without symptoms must be treated without antibiotics to avoid resistance to antibiotics. In case of a resistance, bacteria adapt to the antibiotics and the antibiotic loses its effect.

b) UTI with symptoms and UTI with fever (symptomatic)

Age	Symptoms
Neonates (0-1 month)	Discomfort, fatigue, sucking weakness, fever, weight loss, grey complexion, jaundice
Infants / small children	Abdominal pain, vomiting, sucking weakness, fever, pain when urinating, increased enuresis, apathy, sensitivity, sleep disorder
Older children	Abdominal or flank pains, fever, fatigue, loss of appetite, nausea and vomiting, disruption of urination (pain, frequent small amounts of urine, urinary retention, incontinence)
Children with restrictions of the central nervous system (e.g. spina bifida)	Discomfort, increased enuresis, increase of spasticity, fever, clammy skin, goose bumps, reddened face, unease

1.3 Analyse urine

A urinalysis (urine microscopy) and a urine culture are necessary to be able to treat a UTI with symptoms. The analysis of urine is performed by a paediatrician or in the accident and emergency department: the urine is directly collected in a sterile cup (midstream urine) or removed by means of one-time catheterisation. The removal of urine via the urine bag is not recommended.

We advise against regularly testing the urine with a test strip (urine test strip). Especially during repeated catheterisation, the tests are frequently positive, but the result has no consequence.

Literature:

Benz, M.R. & Weber, L.T.(2008).Harnwegsinfektionen im Kindesalter. *Kinder- und Jugendmedizin*,4:223-231

Berger, Ch. et al (2013). Diagnose und Behandlung der Harnwegsinfektion beim Kind. Schweizerische Arbeitsgruppe für pädiatrische Nephrologie, pädiatrische Infektiologie und pädiatrischen Urologie. *Pädiatrica* 24 (4), 10-13