

# REVIEW OF TWO RAPID SCREENING TESTS FOR ASYMPTOMATIC BACTERIURIA DURING PREGNANCY

*Dr. Edgardo Javier Abalos*

*Centro Rosarino de Estudios Perinatales (C.R.E.P.). Rosario.*

*Argentina*

*Maternidad "Martin". Rosario. Argentina*

# DEFINITION

⌘ *Asymptomatic bacteriuria is the presence of pathogen microorganisms in urine samples of patients without symptoms of upper or lower urinary tract infection*

# IN PREGNANCY

⌘ *Prevalence: 4% to 7% ( 2%-17%)*

⌘ *20% to 40% develop **Pyelonephritis***

# ASYMPTOMATIC BACTERIURIA DURING PREGNANCY

⌘ *Preterm labour and delivery*

⌘ *Low birth weight*

⌘ *IUGR*

⌘ *Anaemia*

⌘ *Hypertensive disorders*

⌘ *Renal failure*

**LET'S SCREEN**

**How?**

# OBJECTIVES

*Determine clinical effectiveness of two rapid screening test (nitrite and leukocyte esterase reagent strips) as screening methods for predicting asymptomatic bacteriuria during pregnancy*

# REVIEW

⌘ **Participants**

⌘ **Intervention**

⌘ **Outcomes**

⌘ **Studies**

⌘ **Search Strategy**

⌘ **Method of review**

⌘ **Description**

⌘ **Methodological  
quality**

**Table I: Characteristics and Results of *nitrites* reagent strip tests performed in asymptomatic pregnant women for assessing the prediction of bacteriuria.**

	Prevalence of Bacteriuria	N° of Women	Sensitivity (95%CI)	Likelihood ratio for positive test result	Likelihood ratio for negative test result
<b>Tincello, 1998</b>	5.4%	893	18.8	39.6 (12.6-124)	0.8 (0.7-0.9)
<b>Bachman, 1993</b>	2.3%	1047	45.8	156.3 (46.6-524.5)	0.5 (0.4-0.8)
<b>Robertson, 1988</b>	8.3%	750	43.4	42.8 (19.4-94.3)	0.6 (0.5-0.7)
<b>Abbasi, 1985</b>	4.6%	65	66.7	78.8 (4.5-1379.6)	0.3 (0.1-1.7)
<b>Campos, 1985</b>	4.7%	299	57.1	18.1 (8.2-39.6)	0.4 (0.2-0.8)
<b>Archbald, 1984</b>	9.3%	287	36.7	191.4 (11.6-3169.4)	0.6 (0.5-0.8)
<b>Summary</b>			<b>37.6 (23.4-51.7)</b>	<b>48.5 (23.1-102.1)</b>	<b>0.6 (0.5-0.8)</b>
<b>X<sup>2</sup> Heterogeneity</b>			<b>7.7</b>	<b>10.7 (df=5)</b>	<b>17.4 (df=5)</b>



**Table II: Characteristics and results of leukocyte esterase reagent strip test performed in asymptomatic pregnant women for assessing bacteriuria**

	Prevalence of Bacteriuria	N° of Women	Sensitivity (95%CI)	Likelihood ratio for positive test result	Likelihood ratio for negative test result
<b>Bachman, 1993</b>	2.3%	1047	16.7	5.9 (2.2-15.4)	0.9 (0.7-1.0)
<b>Robertson, 1988</b>	8.3%	750	77.4	8.9 (12.8-28.1)	0.2 (0.2-0.4)
<b>Abbasi, 1985</b>	4.6%	65	100	15.5 (6.0-40.0)	0.1 (0.01-1.8)
<b>Summary</b>			<b>61.8 (21.2-100)</b>	<b>13.2 (6.7-26.0)</b>	<b>0.4 (0.1-2.2)</b>
<b>X<sup>2</sup> Heterogeneity</b>			<b>11.7</b>	<b>4.9 (df=2)</b>	<b>73.0 (df=2)</b>

**Table III: Characteristic and results when either nitrite or leukocyte esterase react in urine samples of asymptomatic pregnant women**

	Prevalence of Bacteriuria	N° of Women	Sensitivity (95%CI)	Likelihood ratio for positive Test result	Likelihood ratio for negative Test result
<b>Bachman, 1993</b>	2.3%	1047	50.0	16 (9.4-27.0)	0.5 (0.4-0.8)
<b>Robertson, 1988</b>	8.3%	750	92.0	18.6 (13.3-26.0)	0.1 (0.02-2.0)
<b>Summary</b>			<b>80.2 (46.1-100)</b>	<b>17.8 (13.4-23.6)</b>	<b>0.2 (0.02-2.0)</b>
<b>X<sup>2</sup> Heterogeneity</b>			<b>3.8</b>	<b>0.2 (df=1)</b>	<b>23.5 (df=1)</b>

# DISCUSSION