Infecções Sexualmente Transmissíveis

Alessandro C. O. Silveira

Realização SBPC ML Sociedade Brasileira de Patologia Clínica Medicina Laboratorial

Conflito de interesse:

Nada a declarar

Dinâmica

- Introdução
- Desafios do laboratório
- Corrimento vaginal
- Úlceras genitais
- Cervicites/ uretrites
- Micoplasmas
- Conclusões

Presidência da República
Casa Civil
Subchefia para Assuntos Jurídicos

DECRETO Nº 8.901, DE 10 DE NOVEMBRO DE 2016

"A denominação 'D', de 'DST', vem de doença, que implica em sintomas e sinais visíveis no organismo do indivíduo. Já 'Infecções' podem ter períodos assintomáticas (sífilis, herpes genital, condiloma acuminado, por exemplo) ou se mantém assintomáticas durante toda a vida do indivíduo (casos da infecção pelo HPV e vírus do Herpes) e são somente detectadas por meio de exames laboratoriais.
O termo IST é mais adequado e já é utilizado pela Organização Mundial de Saúde (OMS) e pelos principais Organismos que lidam com a temática das Infecções Sexualmente Transmissíveis ao redor do mundo"

Adele Benzaken, diretora do Departamento de Vigilância, Prevenção e Controle das IST, do HIV/Aids e das Hepatites Virais

52º
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A MEDICINA LABORATORIAL
AGREGANDO VALOR AO
DESFECHO CLÍNICO

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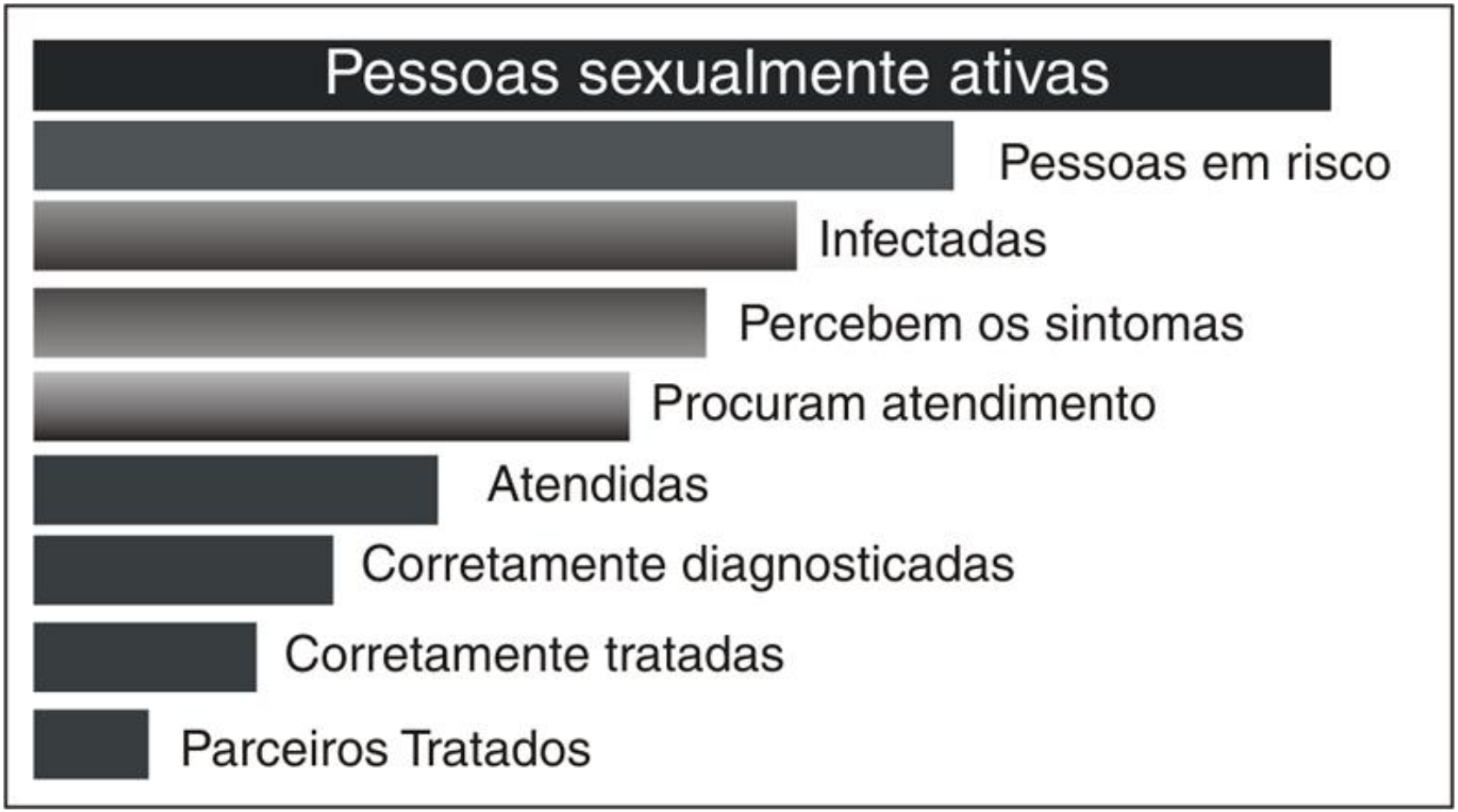
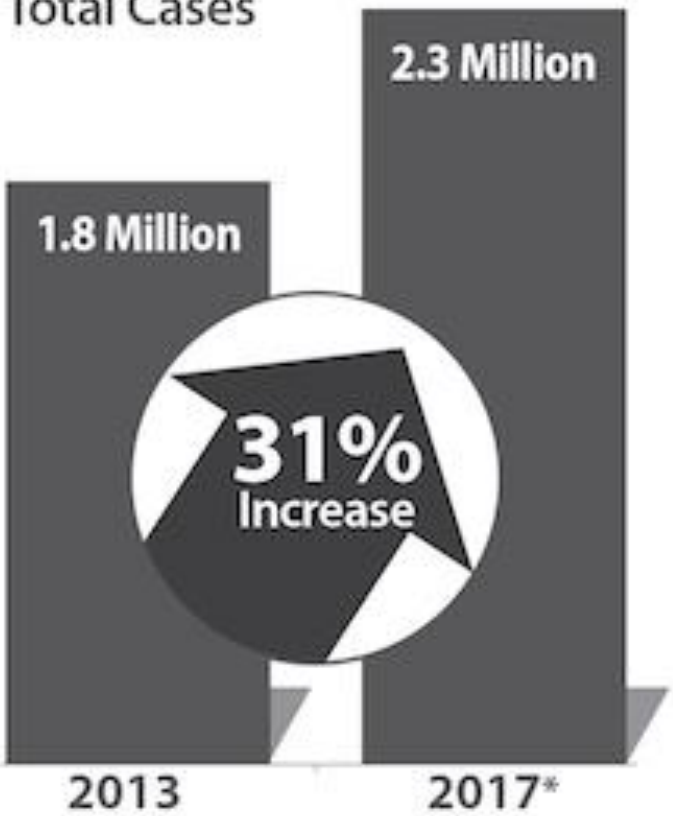
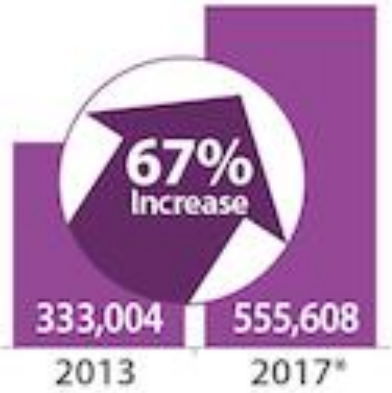


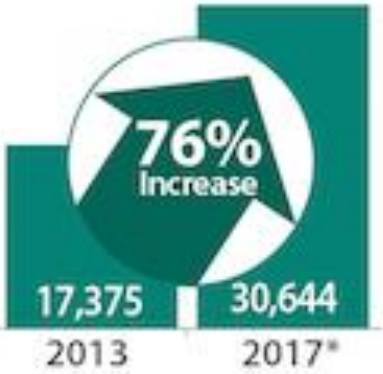
Total Cases



Gonorrhea



Syphilis



Chlamydia

1.7 MILLION

In 2017* chlamydia was the **most common condition** reported to CDC

*Preliminary data

For more information, visit
cdc.gov/nchhstp/newsroom

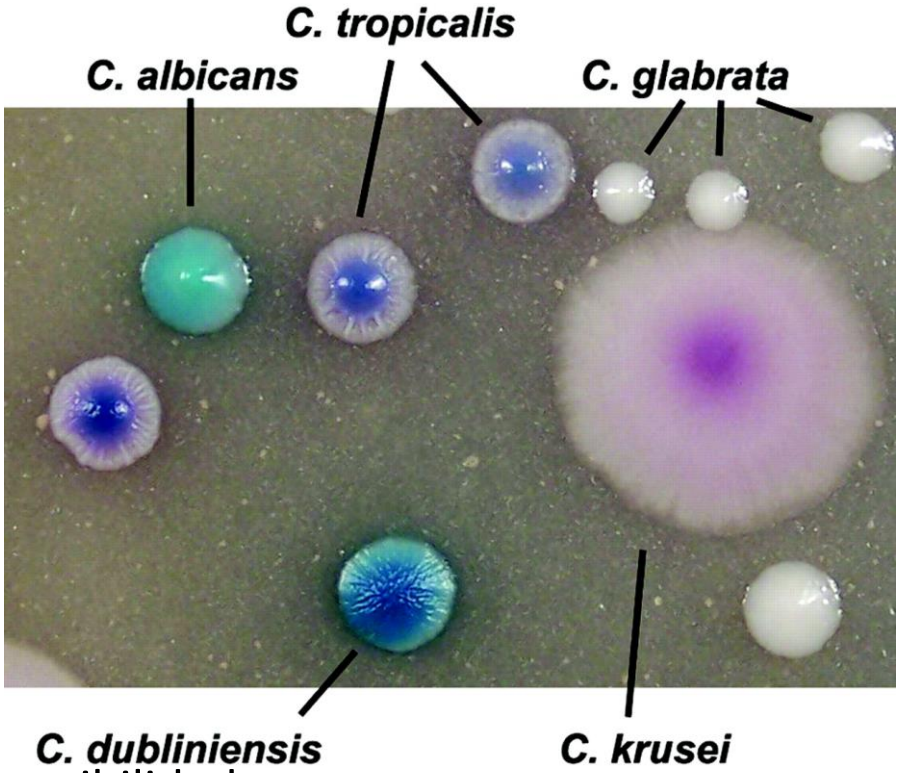
U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Desafios do laboratório

- Diagnóstico clínico
- Abordagem sindrômica
- Microrganismos fastidiosos e/ou que não crescem em cultura
- Pouca solicitação de culturas
- Correlação com bacterioscopias
- Antibioticoterapia de amplo espectro
- Co-infecção
- Diversidade de metodologias
- Dificuldade de padronização
- Necessidade de utilização de testes sorológicos e/ou moleculares

Corrimento vaginal

Candidíase

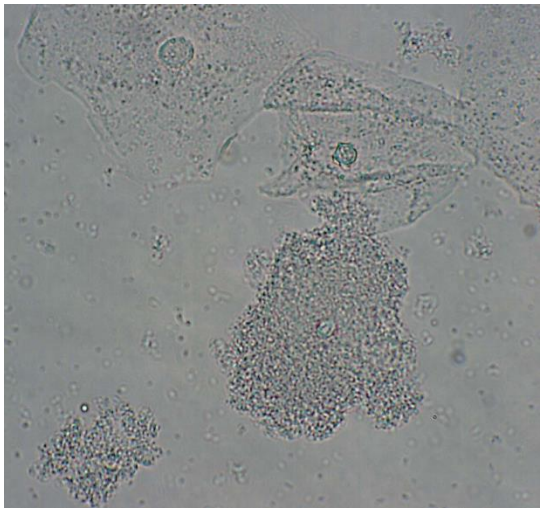


- Sintomas
  - Prurido
  - Corrimento viscoso
  - Eritema
- Pré-analítico
  - Secreção vaginal/ peniana
  - Lesão mucosas
- Analítico
  - Exame a fresco → 60 – 70 % sensibilidade
  - Bacterioscopia → leveduras, pseudo-hifas e/ou hifas
  - Cultura
    - Semeadura → ágar sangue e Saboraud
    - Automatizada
    - Tubo germinativo
    - Cromogênico
    - Antifungigrama (??)

Tricomoníase

- Sintomas
  - Irritação vulvar
  - Prurido
  - Leucorreia esverdeada
- Pré-analítico
  - Secreção vaginal ou endoc
  - Secreção uretral
  - Urina
- Analítico
  - Exame a fresco
  - Bacterioscopia
  - PCR*

Vaginoses



- Sintomas
  - Corrimento fétido bolhoso
  - Ardência
- Pré-analítico
  - Secreção vaginal
- Analítico
  - Gram → raros leucócitos e *Lactobacillus*, presença de cocobacilos pleomórficos Gram variaveis (*Gardnerella vaginalis*), *Clue-Cells* e/ou bacilos Gram negativos curvos (*Mobiluncus*)
  - pH vaginal
  - Teste das aminas
  - Cultura (??)

Tipo morfológico dos microorganismos	Pontuação segundo a quantidade de micro-organismo				
	Nada	1+	2+	3+	4+
Bacilos longos Gram +	4	3	2	1	0
Cocobacilos Gram -	0	1	2	3	4
Bacilos curvos Gram -	0	1	1	2	2

0 – 3 pontos = Normal
4 – 6 pontos = Intermediário
7 – 10 pontos = Vaginose bacteriana

Clinical Infectious Diseases

IDSA GUIDELINE

IDSA Infectious Diseases Society of America · hivma hiv medicine association · OXFORD

A Guide to Utilization of the Microbiology Laboratory for Diagnosis of Infectious Diseases: 2018 Update by the Infectious Diseases Society of America and the American Society for Microbiology[a]

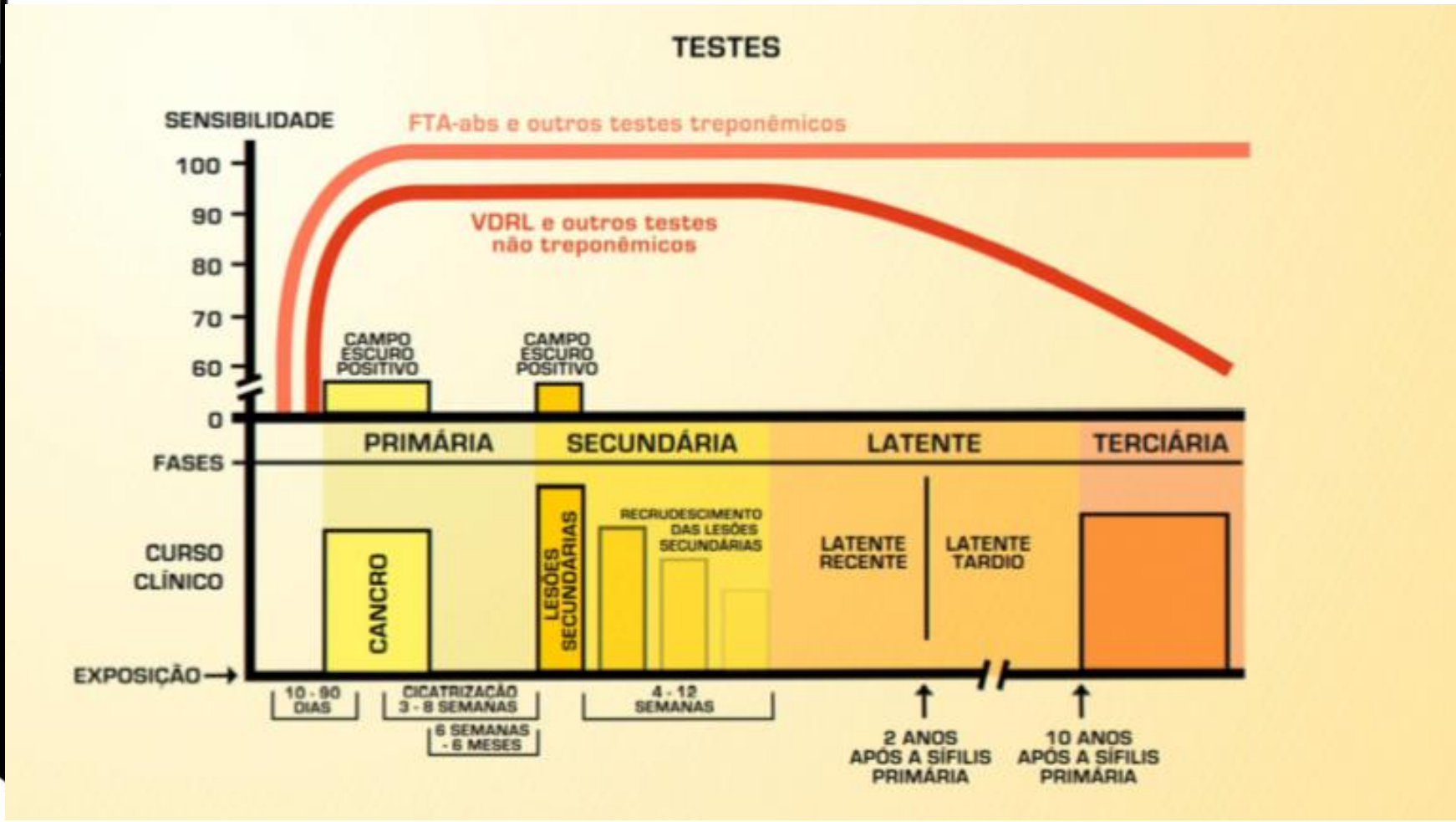
J. Michael Miller,[1] Matthew J. Binnicker,[2] Sheldon Campbell,[3] Karen C. Carroll,[4] Kimberle C. Chapin,[5] Peter H. Gilligan,[6] Mark D. Gonzalez,[7] Robert C. Jerris,[7] Sue C. Kehl,[8] Robin Patel,[2] Bobbi S. Pritt,[2] Sandra S. Richter,[9] Barbara Robinson-Dunn,[10] Joseph D. Schwartzman,[11] James W. Snyder,[12] Sam Telford III,[13] Elitza S. Theel,[2] Richard B. Thomson Jr,[14] Melvin P. Weinstein,[15] and Joseph D. Yao[2]

Table 38. Laboratory Diagnosis of Bacterial Vaginosis, Yeast Vaginitis[a], and Trichomoniasis

Common Etiologic Agents	Diagnostic Procedures	Optimum Specimens	Transport Issues and Optimal Transport Time
Yeast (pH <4.5[b])	Saline wet mount and 10% KOH[c]	Swab of vaginal discharge	Submitted in 0.5 mL saline or transport swab[d], RT, 2 h
	Culture[e]	Swab of vaginal discharge	Submitted in transport swab, RT, 12 h
	DNA hybridization probe[f]	Swab of vaginal discharge[f]	Lab provided transport RT, 7 d, or manufacturer's recommendations
Bacterial vaginosis (pH >4.5[b])	Wet mount and 10% KOH[g]	Swab of vaginal discharge	Submitted in 0.5 mL saline or transport swab, RT, 2 h
	Quantitative Gram stain[h]	Swab of vaginal discharge	Place directly into transport swab tube, RT, 12 h
	DNA hybridization probe[f]	Swab of vaginal discharge[f]	Lab provided transport, RT, 7 d or manufacturer's recommendations
Trichomoniasis (pH >4.5)[b]	[i]	Vaginal, endocervical swab, urine or liquid-based cytology specimen, urethral, rectal, pharyngeal swabs	Lab provided transport, RT, 7 d (or manufacturer's recommendation)
	Rapid antigen test[j]	Swab of vaginal epithelium/discharge	Submitted in transport swab or saline, RT, 24 h
	DNA hybridization probe[f]	Swab of vaginal discharge[f]	RT, 7 d
	Culture[k]	Swab of vaginal discharge	Place directly into InPouch TV Culture system, RT, 48 h
	Saline wet mount[l]	Swab of vaginal discharge	Submitted in saline, RT, 30 min (optimal) – 2 h

Úlceras genitais

Sífilis



Legenda: Processo predefinido. Processo. Exige uma tomada de decisão. Finalizador.

Fonte: DDAHV/SVS/MS.

MS, 2016

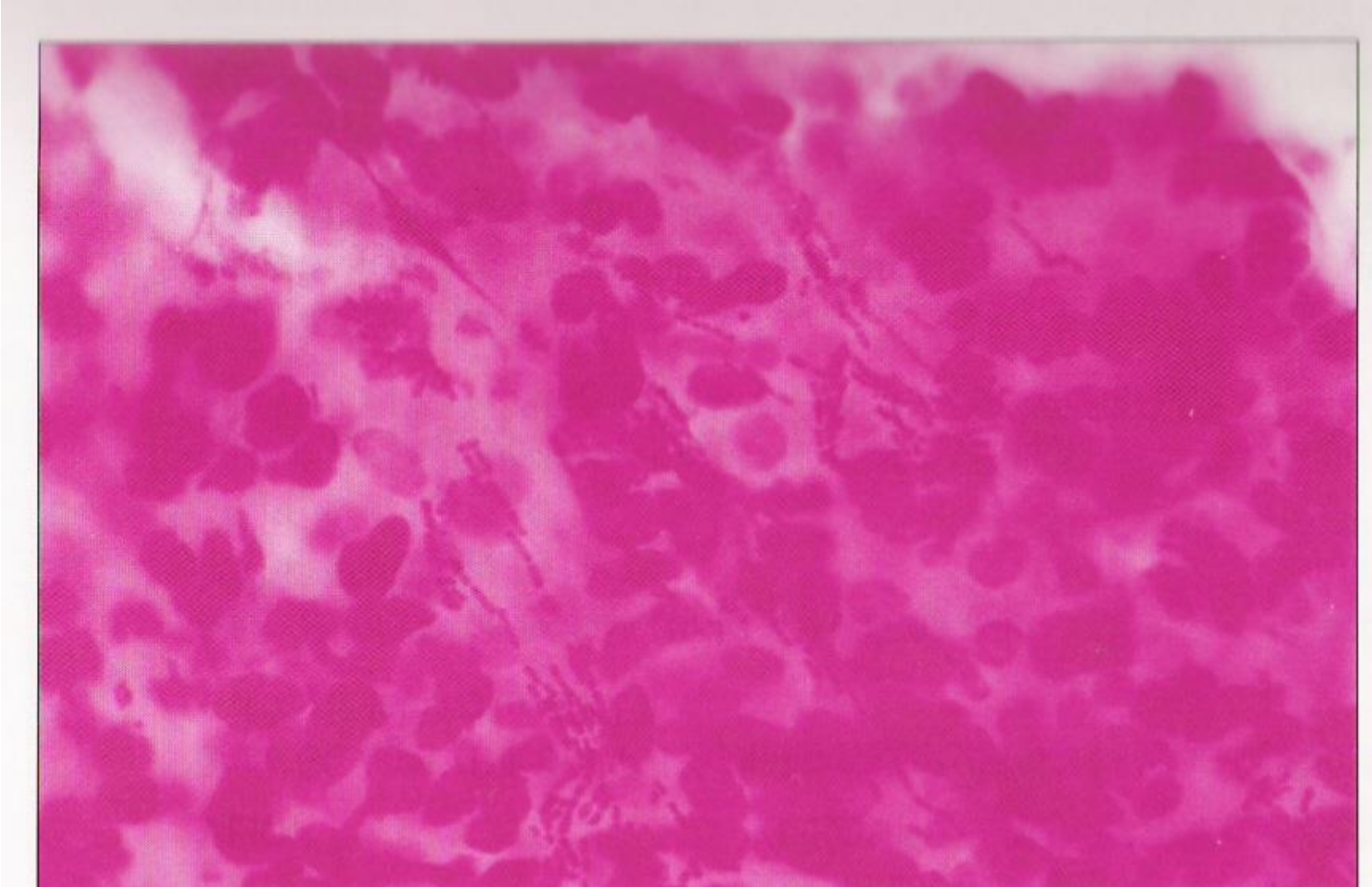
INTERNATIONAL JOURNAL OF
STD & AIDS

International Journal of STD & AIDS
2017, Vol. 28(4) 324–329

DOI: 10.1177/0956462416687913
journals.sagepub.com/home/std
SAGE

2017 European guideline for the management of chancroid

Stephan Lautenschlager[1], Michael Kemp[2], Jens Jørgen Christensen[3], Marti Vall Mayans[4] and Harald Moi[5]



Lymphogranuloma Venereum 2015: Clinical Presentation, Diagnosis, and Treatment

Bradley P. Stoner[1] and Stephanie E. Cohen[2,3]

[1]Department of Anthropology and Division of Infectious Diseases, Washington University, St Louis, Missouri; [2]San Francisco Department of Public Health, and [3]Division of Infectious Diseases, University of California, San Francisco

- Sinais
  - Período de incubação → 3 a 30 dias
  - Pápula indolor→linfagite (bubões)→manifestações sistêmicas
  - Elefantíase genital
- Pré-analítico
  - Coleta por punção
- Analítico
  - Cultura celular
  - Sorologia
  - PCR

Clinical Infectious Diseases® 2015;61(S8):S865–73

INTERNATIONAL JOURNAL OF
STD & AIDS

International Journal of STD & AIDS
0(0) 1–3

DOI: 10.1177/0956462416633626
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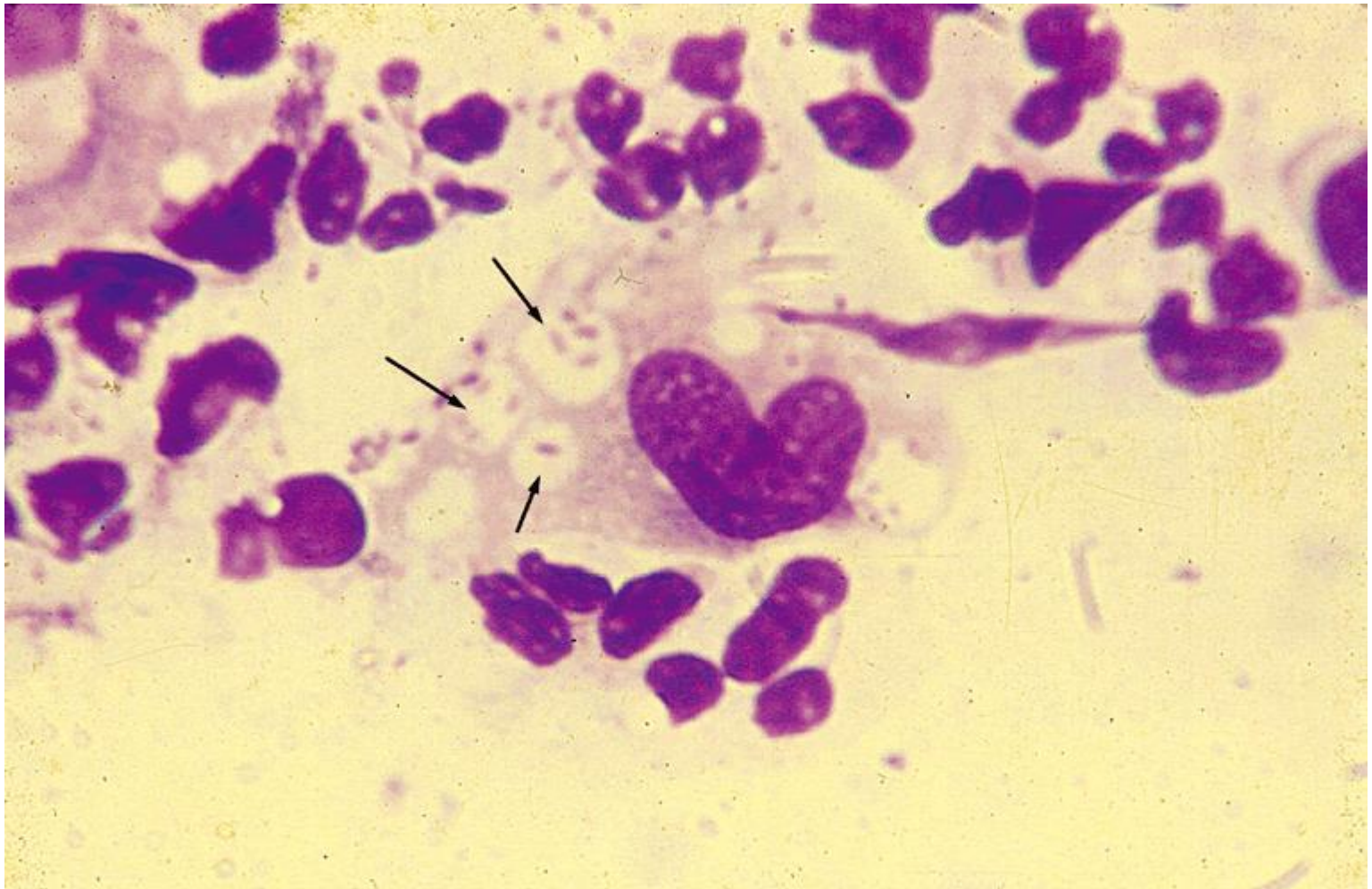
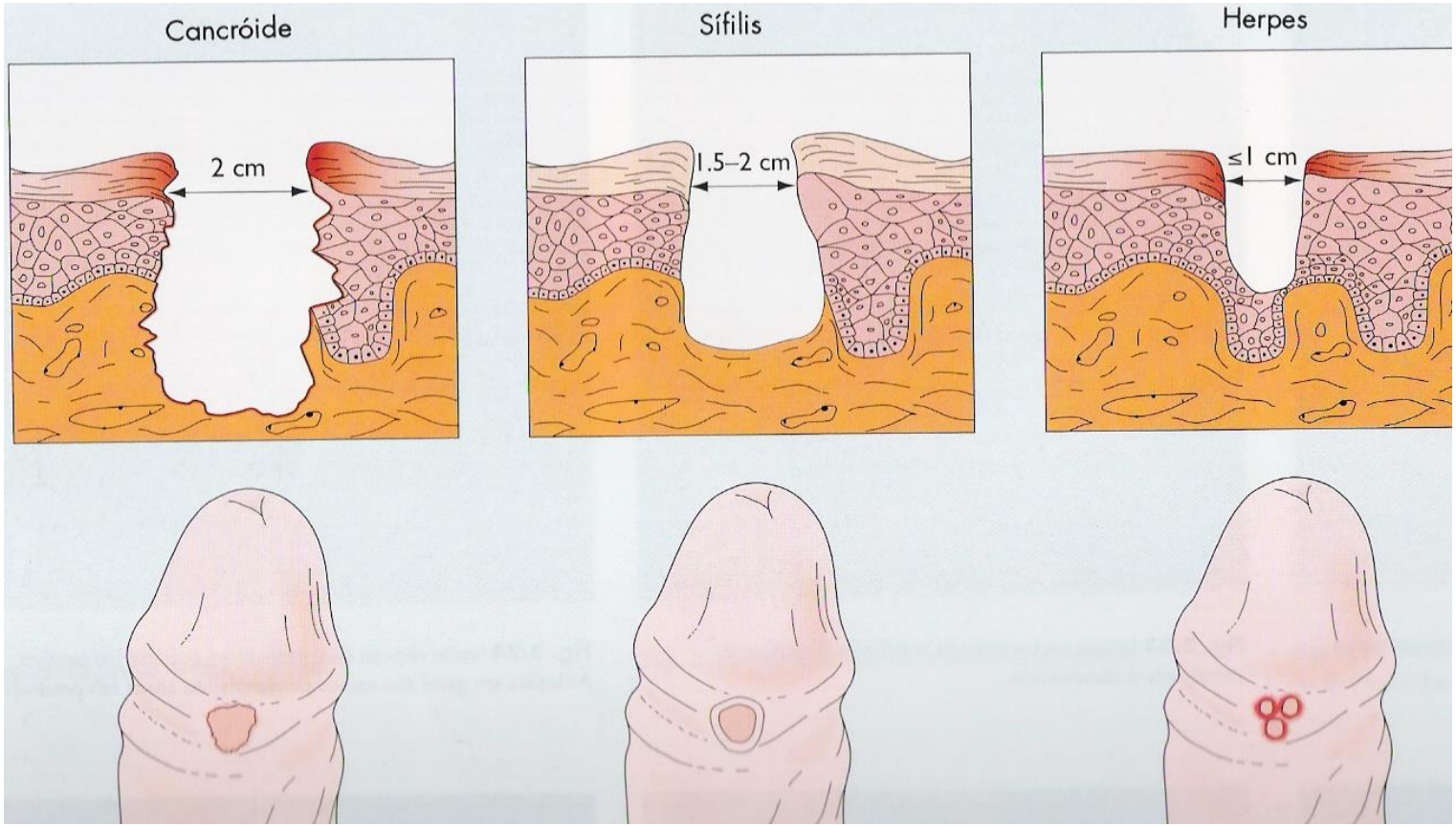
2016 European guideline on donovanosis

Nigel O'Farrell[1] and Harald Moi[2]



Doença	N° lesões	Enduração	Hiperestesia	Borda	Base/fundo	Adenopatia
Cancro mole	múltiplas	rara	dolorosa	irregular	mole,profunda,exusadação purulenta	unilateral,supurativa por orifício único
Cancro duro	única	comum	indolor	lisa	dura,profundidade variável	bilateral,não-supurativa
LGV	única,geralamente não percebida	rara	indolor	regular	fundo superficial e limpo	unilateral,supurativa por vários orifícios
Herpes simples	múltiplas vesículas	rara	dolorosa	regular	exulcerações	bilateral pouco acentuada
Donovanose	única	comum	indolor	irregular	fundo limpo friável	ausente



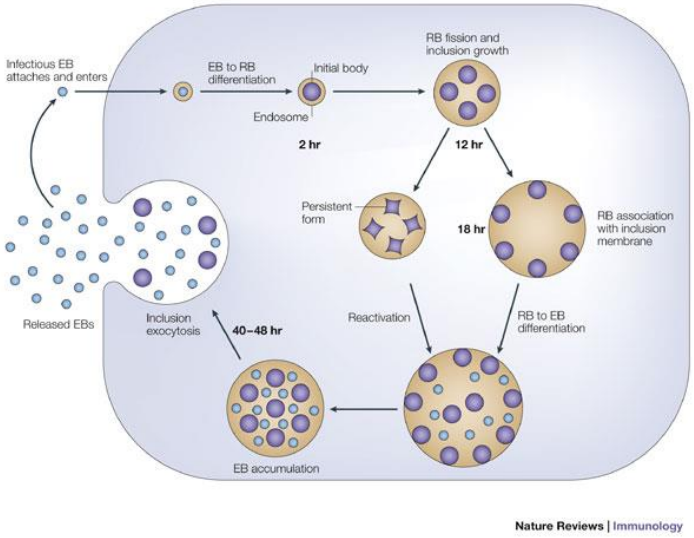
BELDA, 2009

Syphilis	Darkfield microscopy[g] Test is not widely available and specimen must be transported to laboratory immediately to visualize motile spirochetes	Cleanse lesion with gauze and sterile saline Swab of lesion base directly to slide	RT, immediately to laboratory
	DFA–*Treponema pallidum*[h,i]	Cleanse lesion with gauze and saline Swab of lesion base directly to slide. Clarify source, genital, oral, rectal	Slide should be dry before placing in holder and/or transporting to laboratory
	Serology Nontreponemal (VDRL or RPR)[j]	Serum	Clot tube, RT, 2 h
	Treponemal serology EIA/CIA or TPPA, FTA-ABS)[k,l]	Serum	Clot tube, RT, 2 h
Chancroid (*Haemophilus ducreyi*)[m]	Gram stain and culture[n]	Swab of lesion base without surface genital skin	RT immediately to laboratory
	NAAT[b]		
Lymphogranuloma venereum[m] (*Chlamydia* serovars L1, L2, L2a, L2b, L3)	Cell culture[o]	Swab of ulcer base, bubo drainage, rectum	RT, immediately to laboratory
	Serology MIF[p]	Serum	RT, 2 h
	Serology Complement fixation[q]	Serum	RT, 2 h
	NAAT[r]	Swab of ulcer base, bubo drainage, rectum	RT, 2 days; or refrigerate
Granuloma inguinale[m] (donovanosis) *Klebsiella granulomatis*	Giemsa or Wright stain in pathology. Visualization of blue rods with prominent polar granules	Scraping of lesion base into formalin	RT, 2 h

Uretrites/ Cervicites

Chlamydia trachomatis

- Patologias
  - Uretrites
  - Cervicites
  - Epididimites
  - Tracoma
- Pré-analítico
  - Raspado endocervical
  - Swab uretral
  - Urina primeiro jato
  - Líquido para citologia
- Analítico
  - Cultura celular
  - PCR



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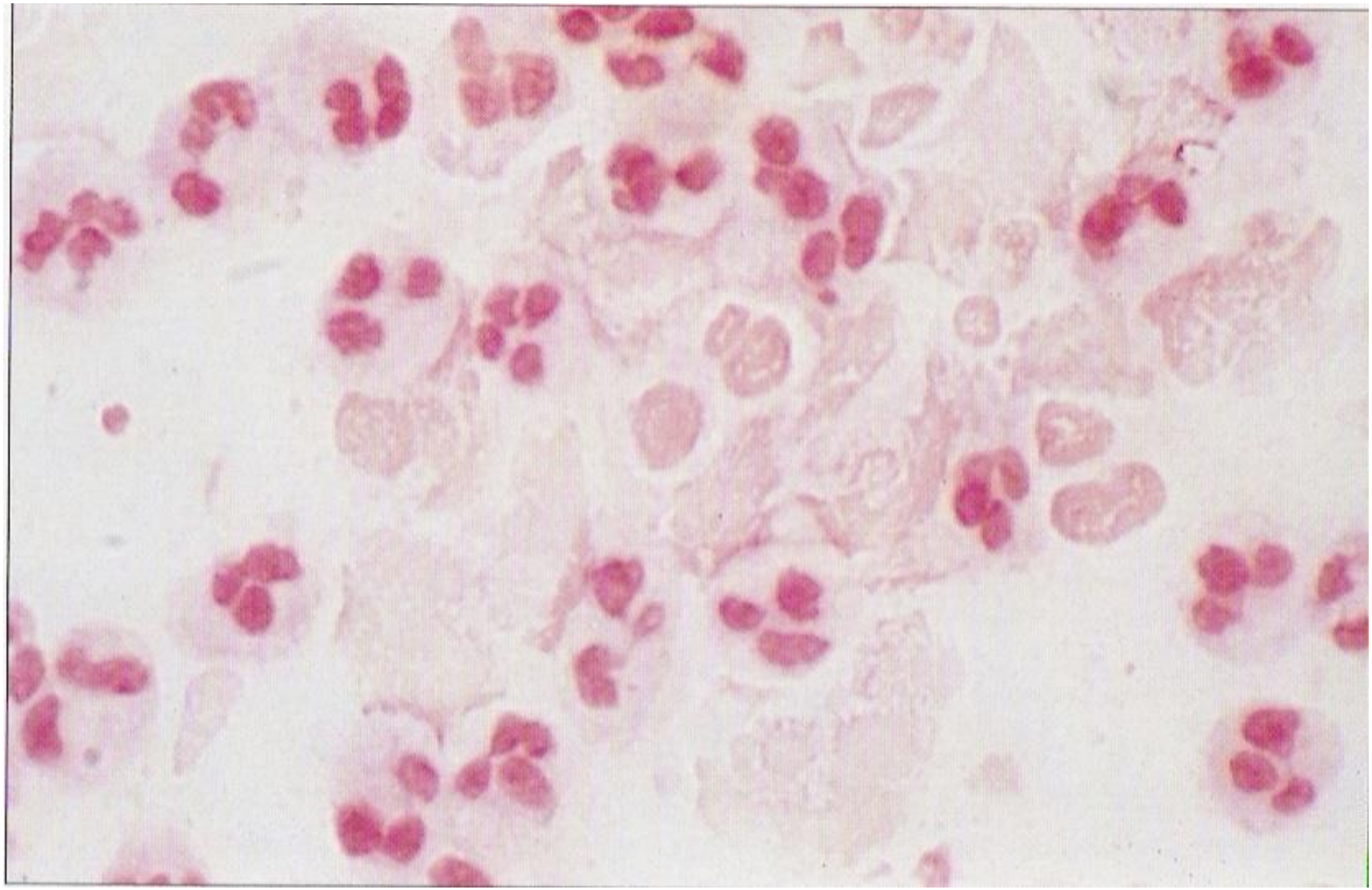

Gonorreia

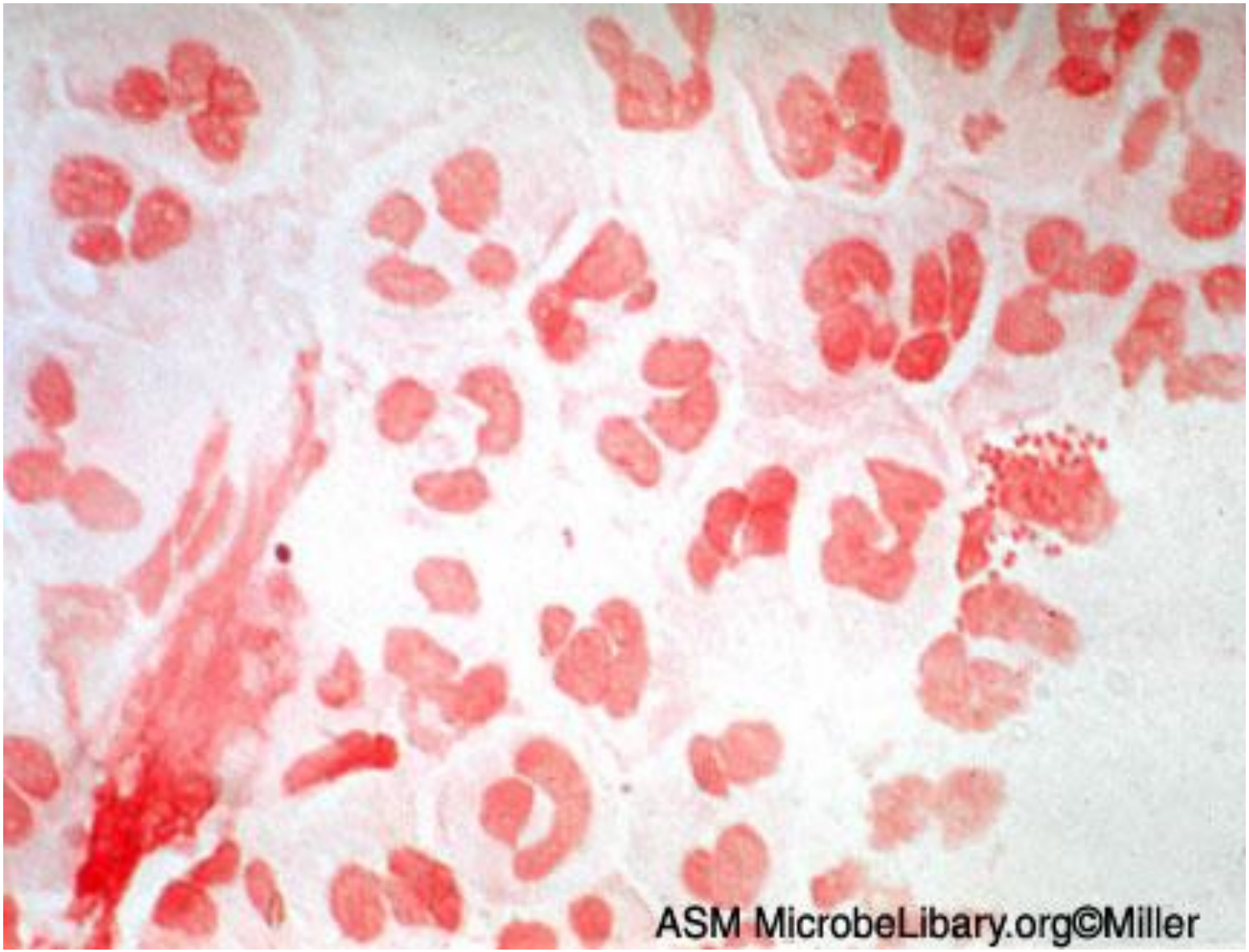

Table 39. Laboratory Diagnosis of Pathogens Associated With Cervicitis/Urethritis

Common Etiologic Agents	Diagnostic Procedures	Optimum Specimens	Transport Issues and Optimal Transport Time
Chlamydia trachomatis	NAAT[a]	Urine Endocervical, vaginal, and/or urethral swab (rectum, pharynx, conjunctiva, liquid-based cytology)[b,c]	Laboratory-provided transport device, RT, 2 d
	Culture[d]	Endocervical, urethral, conjunctival, NP, pharynx, or rectal swab	Laboratory-provided transport device, refrigerate (4°C); <2 h
	DFA test[e]	Conjunctival swab	Transport medium, RT, 2 h
Neisseria gonorrhoeae	Gram stain[f]	Urethral discharge	Smear on slide directly or submit swab in transport medium, RT, immediately
	NAAT[a]	Urine Endocervical, vaginal, and/or urethral swab (Rectal, pharynx, conjunctiva, liquid-based cytology specimen)[b,c]	Laboratory-provided transport device, RT, 2 d
	Culture[g]	Endocervical, urethral, conjunctival, nasopharyngeal, pharynx, rectal swab	Transport medium, RT, ≤1 h Do not refrigerate specimen
Trichomonas vaginalis	NAAT[c]	Vaginal, endocervical swab, urine and liquid-based cytology specimen, urethral, rectal, pharyngeal swabs	Laboratory-provided transport device, RT, 2 d
	Rapid antigen test[h]	Endocervical swab	Laboratory-provided transport device, RT, 24 h
	DNA hybridization probe[i,j]	Endocervical or vaginal swab	Laboratory-provided transport device, RT, 7 d
	Culture[k]	Endocervical or urethral swab	Direct inoculation into InPouch TV culture system, 2–5 d
	Saline wet mount[l]	Endocervical or urethral swab	Submit in 0.5 mL saline, 30 min–2 h
Herpes simplex virus	DFA[m]	Scraping of lesion base	Apply to slide at bedside, RT, 24 h
	Culture	Scraping of lesion base	Place in VTM/UTM RT
	NAAT[n]	Scraping of lesion or swab of discharge	Laboratory-provided transport device, assay-specific; consult laboratory

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Combined Testing for Chlamydia, Gonorrhea, and Trichomonas by Use of the BD Max CT/GC/TV Assay with Genitourinary Specimen Types

Barbara Van Der Pol,[a] James A. Williams,[b] DeAnna Fuller,[c] Stephanie N. Taylor, Edward W. Hook III[a]

TABLE 2 BD MAX sensitivity and specificity by sample type compared to infection status for chlamydia, gonorrhea, and trichomonas

	Chlamydia		Gonorrhea		Trichomonas	
Specimen type	Sensitivity[a]	Specificity[a]	Sensitivity[a]	Specificity[a]	Sensitivity[a]	Specificity[a]
Vaginal swab						
Asymptomatic	100 [51/51] (93.0–100)	98.7 [734/744] (97.5–99.3)	94.1 [16/17] (73.0–99.0)	99.9 [777/778] (99.3–100)	93.1 [27/29] (78.0–98.1)	97.5 [270/277] (94.9–98.9)
Symptomatic	98.9 [89/90] (94.0–99.8)	98.6 [938/951] (97.7–99.2)	96.3 [26/27] (81.7–99.3)	99.8 [1,012/1,014] (99.3–99.9)	96.7 [119/123] (91.9–98.2)	99.5 [616/619] (98.6–99.8)
Total	99.3 [140/141] (96.1–99.9)	98.6 [1,672/1,695] (98.0–99.1)	95.5 [42/44] (84.9–98.7)	99.8 [1,789/1,792] (99.5–99.9)	96.1 [146/152] (91.7–98.2)	98.9 [886/896] (98.0–99.4)
Endocervical swab						
Asymptomatic	94.1 [48/51] (84.1–98.0)	99.1 [737/744] (98.1–99.5)	94.1 [16/17] (73.0–99.0)	100 [777/777] (99.5–100)	96.6 [28/29] (82.8–99.4)	98.2 [270/275] (95.8–99.2)
Symptomatic	96.6 [84/87] (90.3–98.8)	99.4 [943/949] (98.6–99.7)	96.3 [26/27] (81.7–99.3)	99.9 [1,002/1,003] (99.4–100)	92.7 [114/123] (86.7–96.1)	99.8 [611/612] (99.1–100)
Total	95.7 [132/138] (90.8–98.0)	99.2 [1,680/1,693] (98.7–99.6)	95.5 [42/44] (84.9–98.7)	99.9 [1,779/1,780] (99.7–100)	93.4 [142/152] (88.3–96.4)	99.3 [881/887] (98.5–99.7)
Female urine						
Asymptomatic	92.3 [48/52] (81.8–97.0)	99.7 [747/749] (99.0–99.9)	88.9 [16/18] (67.2–96.9)	99.5 [779/783] (98.7–99.8)	93.1 [27/29] (78.0–98.1)	98.2 [272/277] (95.8–99.2)
Symptomatic	91.1 [82/90] (83.4–95.4)	99.4 [952/958] (98.6–99.7)	100 [28/28] (87.9–100)	99.9 [1,019/1,020] (99.4–100)	92.8 [116/125] (86.9–96.2)	99.8 [615/616] (99.1–100)
Total	91.5 [130/142] (85.8–95.1)	99.5 [1,699/1,707] (99.1–99.8)	95.7 [44/46] (85.5–98.8)	99.7 [1,798/1,803] (99.4–99.9)	92.9 [143/154] (87.7–96.0)	99.3 [887/893] (98.5–99.7)
Male urine						
Asymptomatic	98.6 [69/70] (92.3–99.7)	99.5 [378/380] (98.1–99.9)	80.0 [4/5] (37.6–96.4)	100 [447/447] (99.1–100)	No evaluation of trichomonas testing was performed in male urine	No evaluation of trichomonas testing was performed in male urine
Symptomatic	94.6 [105/111] (88.7–97.5)	99.3 [267/269] (97.3 99.8)	100 [103/103] (96.4–100)	100 [285/285] (98.7–100)		
Total	96.1 [174/181] (92.2–98.1)	99.4 [645/649] (98.4–99.8)	99.1 [107/108] (94.9–99.8)	100 [732/732] (99.5–100)		

[a]Values shown are percentage [number of positive results/number of infections] (95% confidence interval).

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Performance of the Cepheid CT/NG Xpert Rapid PCR Test for Detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae*

Charlotte A. Gaydos,[a] Barbara Van Der Pol,[b,c] Mary Jett-Goheen,[a] Mathilda Barnes,[a] Nicole Quinn,[a] Carey Clark,[d] Grace E. Daniel,[c] Paula B. Dixon,[d] Edward W. Hook III,[d] The CT/NG Study Group

TABLE 3 Performance of Xpert CT/NG versus patient infection status by symptomatic status for *Neisseria gonorrhoeae*

Sample type[a]	Symptom status[b]	Total (*n*)	Sens[c] (% [no. positive/no. total])	95% CI	Spec[d] (% [no. positive/no. total])	95% CI	Prev[e] (%)	PPV[f] (%)	NPV[g] (%)
VS	Symp	581	100 (10/10)	74.1 to 100	99.8 (570/571)	99.0 to 100	1.7	90.9	100
	Asymp	1,132	100 (12/12)	77.9 to 100	99.9 (1,119/1,120)	99.5 to 100	1.1	92.3	100
	Overall	1,713	100 (22/22)	87.3 to 100	99.9 (1,689/1,691)	99.6 to 100	1.3	91.7	100
	Difference		1.000[h,i]	−0.001 to 0.001	1.000[h,i]	−0.47 to 0.23			
ES	Symp	582	100 (10/10)	74.1 to 100	100 (572/572)	99.5 to 100	1.7	100	100
	Asymp	1,128	100 (12/12)	77.9 to 100	100 (1,116/1,116)	99.7 to 100	1.1	100	100
	Overall	1,710	100 (22/22)	87.3 to 100	100 (1,688/1,688)	99.8 to 100	1.3	100	100
	Difference		1.000[h,i]	−0.001 to 0.001	1.000[h,i]	−0.0001 to 0.0001			
UR-F	Symp	582	100 (11/11)	76.1 to 100	100 (571/571)	99.5 to 100	1.9	100	100
	Asymp	1,136	91.7 (11/12)	61.5 to 99.8	99.9 (1,123/1,124)	99.5 to 100	1.1	91.7	99.9
	Overall	1,718	95.6 (22/23)	78.1 to 99.9	99.9 (1,694/1,695)	99.7 to 100	1.3	95.6	99.9
	Difference		1.000[h,i]	−7.3 to 24	1.000[h,i]	−0.1 to 0.26			
UR-M	Symp	254	97.8 (44/45)	88.2 to 99.9	100 (209/209)	98.6 to 100	17.7	100	99.5
	Asymp	1,132	100 (5/5)	54.9 to 100	99.9 (1,126/1,127)	99.5 to 100	0.4	83.3	100
	Overall	1,386	98.0 (49/50)	89.4 to 99.9	99.9 (1,335/1,336)	99.6 to 100	3.6	98.0	99.9
	Difference		1.000[h,i]	−6.5 to 2.1	1.000[h,i]	−0.1 to 0.2			

Micoplasmas

- Patologias
  - Uretrites
  - Prostatites
  - Cálculo urinário
  - Infertilidade
  - Aborto espontâneo
  - DIP
- Pré-analítico
  - Amostras → urina de primeiro jato, secreção prostática, esperma, swab uretral
  - Meio de transporte
- Analítico
  - Meios utilizados → ureia (*U. urealyticum*), arginina (*M. hominis*)
  - Qualitativa ou quantitativa
  - Antibiograma

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Brief Original Article

Comparison of Mycoplasma IES, Mycofast Revolution and Mycoplasma IST2 to detect genital mycoplasmas in clinical samples

Tiziana D'Inzeo, Giulia De Angelis, Barbara Fiori, Giulia Menchinelli, Flora Marzia Liotti, Grazia Angela Morandotti, Flavio De Maio, Domenico Nagel, Marco Antonaci, Maurizio Sanguinetti,Teresa Spanu

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Table 1. Comparison of Mycoplasma IES, Mycofast Revolution and Mycoplasma IST 2 tests for the detection of genital mycoplasmas.

Microorganism (*n*)	Comparison with reference results			
	Sensitivity (%) (TP/TP+ FN)	Specificity (%) (TN/TN+FP)	PPV (%) (TP/TP+FP)	NPV (%) (TN/TN+FN)
***Ureaplasma urealyticum* (106)**				
Mycoplasma IES	100	100	100	100
Mycofast Revolution	96.2	100	100	98
Mycoplasma IST 2	95.3	100	100	97.5
***Mycoplasma hominis* (14)**				
Mycoplasma IES	92.8	100	100	99.6
Mycofast Revolution	92.8	100	100	99.6
Mycoplasma IST 2	85.7	100	100	99.3

Abbreviations. PPV, positive predictive value; NPV, negative predictive value; TP, true positive; FP, false positive; TN, true negative; FN, false negative.

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ORIGINAL ARTICLE

Prevalence and antimicrobial susceptibility of *Ureaplasma urealyticum* and *Mycoplasma hominis* in female outpatients, 2009–2013

Qing-Yong Wang, Rong-Hai Li, Lu-Qing Zheng, Xiao-Hong Shang*

Table 2 Antimicrobial susceptibility of *Ureaplasma urealyticum* and *Mycoplasma hominis* (single and coinfection) to 14 antibiotics among female outpatients during the study period[a]

Antibiotic	*U. urealyticum*	*M. hominis*	Coinfection
Spectinomycin	12.9	75.6	6.7
Tetracycline	95.2	100	84.3
Minocycline	94.6	100	85.2
Doxycycline	98	100	88.7
Ciprofloxacin	5.8	17. 8	5.2
Ofloxacin	22.1	15. 6	10.4
Sparfloxacin	43.1	37. 8	27
Levofloxacin	39.9	20	20
Azithromycin	69.2	2.2	4.3
Erythromycin	78.1	0	0
Josamycin	87.9	91.1	73
Roxithromycin	96.5	4.4	7.8
Acetylspiramycin	31.7	35.6	9.6
Clarithromycin	98.4	4.4	10.4

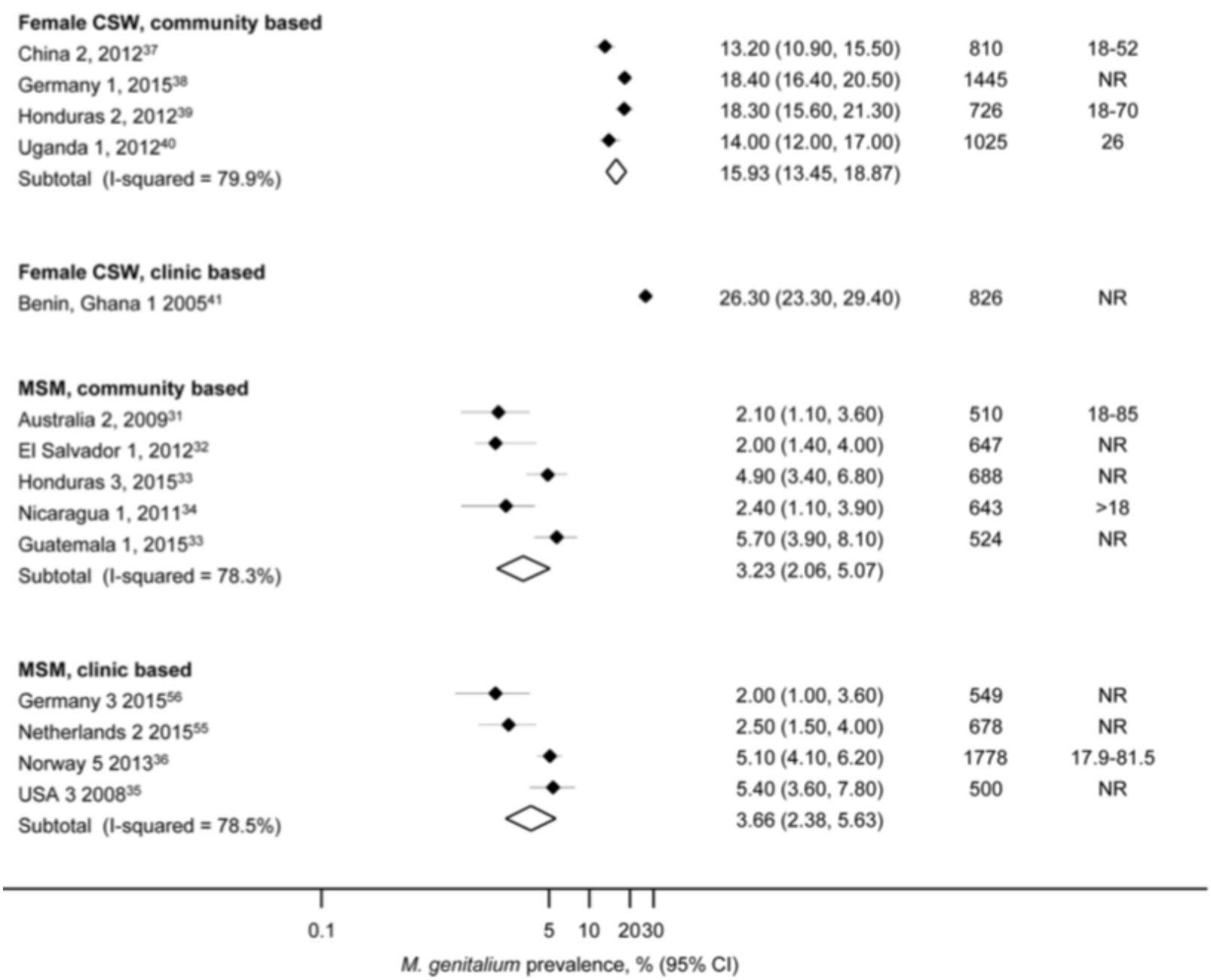
Table 1 Distribution of *Ureaplasma urealyticum* and *Mycoplasma hominis* (single infection and coinfection) among female outpatients in different age groups during the study period[a]

Infection in different age groups	*Ureaplasma urealyticum*	*Mycoplasma hominis*	Coinfection	Negative	Total
20–29	718 (32.8)	15 (0.7)	47 (2.1)	1408 (64.4)	2188 (100)
30–39	948 (29.6)	24 (0.7)	46 (1.4)	2189 (68.3)	3207 (100)
40–49	193 (34.4)	4 (0.7)	19 (3.4)	345 (61.5)	561 (100)
Others	30 (31.6)	2 (2.1)	3 (3.2)	60 (63.2)	95 (100)
Total	1889 (31.2)	45 (0.7)	115 (1.9)	4002 (66.1)	6051 (100)

[a] "Coinfection" means that the patients were simultaneously infected with *Ureaplasma urealyticum* and *Mycoplasma hominis*. Data are presented as *n* (%).

Table 40. Laboratory Diagnosis for Pathogens Associated With Pelvic Inflammatory Disease and Endometritis

Common Etiologic Agents	Diagnostic Procedures	Optimum Specimens	Transport Issues and Optimal Transport Time
Mixed anaerobic organisms Vaginal flora Enterobacteriaceae, enterococci, group A and B streptococci	Blood cultures and antimicrobial susceptibilities to assess unusual causes of PID or endometritis	Blood, 2 separate 20-mL venipuncture collections	Inject into blood culture bottles at bedside, RT, 1 h
Mycoplasma *Actinomyces* spp[a]	Gram stain[b] Aerobic and anaerobic culture[c]	Endometrium, tubo-ovarian abscess and/or fallopian tube contents	Place in or inject into sterile anaerobic container[d], RT, 30 min
	Histology for evidence of endometritis	Endometrial biopsy	Sterile container, RT, 30 min Formalin container, RT, 30 min–4 h
Neisseria gonorrhoeae[e] *Chlamydia trachomatis* *Trichomonas vaginalis* *Mycoplasma genitalium*	NAAT	Urine, endocervical swab	Laboratory-provided transport device, RT, 2 d



Conclusões

- As ISTs representam um grave e crescente problema de saúde pública mundial
- O diagnóstico laboratorial é importante para caracterização do patógeno, apesar da abordagem sindrômica
- Os testes moleculares são imprescindíveis, principalmente nos casos de microrganismos de difícil cultivo
- Há uma grande diversidade de testes disponíveis no mercado. Cabe ao microbiologista avaliar, baseado nas particularidades do seu laboratório, avaliar quais os testes são mais adequados à sua rotina

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A MEDICINA LABORATORIAL
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DESFECHO CLÍNICO

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