Appendix 1. Study characteristics of studies evaluating the accuracy of urine human papillomavirus (HPV) detection compared to cervical HPV detection in sexually active females.

Study (year)	Country	Sample recruited (Sample analysed)	Mean age (range)	Study context (purpose)	Comorbidities
Alameda (2007)	Spain	50 (50)	36 (28-55)	GOPD (cancer screening)	-
Bissett (2011)	England	264 (253)	-	Colposcopy (HPV surveillance)	-
Brinkman (2002)	America	101 (101)	-	HIV OPD (cancer screening)	HIV
Cuschieri (2011)	Scotland	90 (90)	- (16-25)	GUM OPD (HPV surveillance)	-
Daponte (2006)	Greece	100 (100)	-	Colposcopy (cancer screening)	-
Daponte (2008)	Greece	100 (100)	-	Colposcopy (cancer screening)	-
Fambrini (2008)	Italy	52 (52)	37.9 (18-59)	GOPD (CIN follow-up)	-
Forslund (1993)	Sweden	12 (6)	19 (17-22)	Adolescent OPD (HPV surveillance)	Genital warts
Gupta (2006)	India	60 (56)	41.9	- (cancer screening)	-
Jong (2008)	Netherlands	27 (27)	-	HIV OPD (cancer screening)	HIV
Munoz (2013) Munoz (2013)	Colombia	245 (194)	38.1	HIV OPD (cancer screening)	HIV
Payan (2007)	France	177 (177)	-	GOPD (HPV surveillance)	-
Pieralli (2009)*	Italy	52 (52)	37.9 (18-59)	GOPD (CIN follow-up)	-
Prusty (2005)	India	55 (55)	(18-35)	GOPD (HPV surveillance)	-
Sellors (2000)	Canada	245 (200)	31.5	Colposcopy (cancer screening)	-
Song (2007)	Korea	181 (100)	45.2 (26-77)	GOPD (cancer screening)	Chronic cervicitis
Stanczuk (2003)	Zimbabwe	43 (43)	24-70	GOPD (cancer screening)	-
Strauss (1999)	England	144 (136)	26 (16-57)	GUM OPD (cancer screening)	-
Tanzi (2013)	Italy	107 (107)	41 (22-70)	GUM OPD (cancer screening)	HIV
Jacobson (2000)	America	100 (80)	(11-20)	GUM OPD (HPV surveillance)	-
Sahasrabuddhe (2014)	America	72 (72)	30.6 (20-61)	Colposcopy (cancer screening)	-
Mendez (2014)	America	52 (50)	32 (21-60)	GOPD (cancer screening)	-

*same population as Fambrini (2008)

Appendix 1 continued

LSIL cytology or worse	CIN II or worse (Cancer)	Urine sampling (Volume analysed in ml)	Timing	Storage temperature in °C
30/50	-	First-void	Same day, urine before cervical	-
-	-	-	-	Minus 25
27/97	-	Random (2)	Same day, urine before cervical	Minus 20
-	-	- (5)	-	Minus 70
-	48/100 (9)	First-void (5)	-	Plus 4
-	51/100 (15)	First-void	Same day, urine before cervical	-
43/52	52/52 (0)	First-void (5)	Same day, urine before cervical	Plus 4
-	-	First-void	Same day, urine before cervical	-
0/30	30/30 (30)	- (30)	Same day, urine before cervical	-
6/26	-	Random (0.05)	Within 2 weeks	Minus 20
36/194	-	Mid-stream (40)	Same day, urine before cervical	Plus 4
-	-	First-void (1)	-	Minus 80
43/52	52/52 (0)	First-void (5)	Same day, urine before cervical	Plus 4
-	-	Morning (50)	-	Plus 4
-	58/161 (1)	First-void (0.5)	Same day, urine before cervical	Plus 4
70/100	67/100 (23)	First-void (15)	Urine 2 weeks after cervical	-
-	43/43 (43)	- (2.5-5)	Same day, urine before cervical	Minus 20
-	-	Mid-stream (20)	-	-
25/107	3/10 (0)	First-void (15)	Same day	Minus 20
15/70	-	First-void (15)	-	Minus 21
27/69	26/71 (0)	First-void (0.53)	Same day, urine before cervical	Plus 20
25/52	7/45 (0)	First-void (6)	Same day, urine before cervical	Minus 20

Appendix 1 continued

HPV detection method	DNA extraction method	DNA amplification platform	Primers
Conventional PCR	Genomica extraction kit	Genomica	MY09/MY11
Conventional PCR	Qiagen QIAmp1 DNA Blood BioRobot1 MDx kit	Non-commercial	Modified GP5+/GP6+
Conventional PCR	Qiagen DNA Mini kit	Non-commercial	PGMY09/MY11
Conventional PCR	Qiagen Media kit	Innogenetics	L1
Conventional PCR	Qiagen QIAmp Viral RNA Mini kit	Maxim Biotech	L1/E6
Conventional PCR and QRT-PCR	-	Maxim Biotech	E1/E6
Conventional PCR	Qiagen EZ1 DNA Tissue kit	BIOLINE	L1
Conventional PCR	Non-commercial	Non-commercial	E6
Conventional PCR	Non-commercial	-	L1
Conventional PCR	Roche VNA kit	Non-commercial	SPF10
Conventional PCR	Epicentre QuickExtract	Non-commercial	L1(GP5+/6+) E6/E7(pU1M/2R)
Real-time PCR	Qiagen QIAmp DNA Mini kit	Roche (Linear Array) and Innogenetics	Modified SPF10
Conventional PCR	Qiagen EZ1 DNA Tissue kit	BIOLINE	L1/E1/E6
Conventional PCR	Non-commercial	Non-commercial	L1
Conventional PCR and Hybrid Capture II	XTRAX kit	Non-commercial	L1
PCR-based DNA micro-array	Wizard genomic DNA purification kit	Biomedlab Co.	-
Nested PCR	Qiagen DNA extraction kit	Non-commerical	Degenerate nested
Nested PCR	Non-commercial	Non-commercial	L1(MY09/MY11/ GP5/GP6)
Conventional PCR	BioMerieux NucliSENS1 MiniMAG1	Innogenetics	L1(MY09/MY11)
Conventional PCR And Hybrid Capture Probe B	-	Non-commercial	L1(MY09/MY11/ HMB01)
Conventional PCR	Qiagen QIAmp DNA Blood kit	Roche (Linear Array)	-
Conventional PCR	Roche MagNA Pure DNA Isolation kit 1	Roche (Linear Array)	-