

Table S1 Sensitivity, specificity, negative and positive predictive value of the electrical impedance spectroscopy (EIS) cohort and the reference cohort for the detection of CIN2+ lesions by cervical cytology, TZ type and age group.

	EIS cohort (n=647)									Reference cohort (n=962)								
	Colpo+ZS			Colpo +ZS						Colpo			Colpo					
	CIN2+/n	CIN2%	CIN2+ ¹	Sensitivity	<CIN2/n	<CIN2 ³	Specificity	PPV	NPV	CIN2+/n	CIN2%	CIN2+ ²	Sensitivity	<CIN2/n	<CIN2 ⁴	Specificity	PPV	NPV
ALL	222/647	34.3	209	94(90-97)	425/647	144	34(29-39)	43(38-47)	92(86-96)	391/962	40.6	267	68(63-73)	571/962	480	84(81-87)	75(70-79)	80(76-83)
ASC-US	16/94	17.0	15	94(70-100)	78/94	37	47(36-59)	27(16-40)	97(86-100)	9/99	9.1	5	56(21-86)	90/99	87	97(91-99)	63(25-92)	96(89-99)
LSIL	39/236	16.5	30	77(61-89)	197/236	82	42(35-49)	21(14-28)	90(82-95)	72/381	18.9	31	43(31-55)	309/381	285	92(89-95)	56(42-70)	87(83-91)
ASC-H	85/192	44.3	84	99(94-100)	107/192	12	11(6-19)	47(39-55)	92(64-100)	138/237	58.2	87	63(54-71)	99/237	64	65(54-74)	71(62-79)	56(46-65)
HSIL	77/94	81.9	77	100(95-100)	17/94	1	6(0-29)	83(74-90)	100(3-100)	154/200	77.0	133	86(80-91)	46/200	21	46(31-61)	84(78-90)	50(34-66)
AGC-NOS	3/28	10.7	2	67(9-99)	25/28	11	44(24-65)	13(2-38)	92(62-100)	5/28	17.9	3	60(15-95)	23/28	22	96(78-100)	75(19-99)	92(73-99)
AGC-FN	2/3	66.7	1	50(1-99)	1/3	1	100(3-100)	100(3-100)	50(1-99)	13/17	76.5	8	62(32-86)	4/17	1	25(1-81)	73(39-94)	17(0-64)
TZ1	156/446	35.0	146	94(89-97)	290/446	90	31(26-37)	42(37-48)	90(82-95)	279/620	45.0	187	67(61-73)	341/620	287	84(80-88)	78(72-83)	76(71-80)
TZ2	66/201	32.8	63	95(87-99)	135/201	54	40(32-49)	44(36-52)	95(85-99)	112/342	32.7	80	71(62-80)	230/342	193	84(79-88)	68(59-77)	86(81-90)
<30 y	60/175	34.3	56	93(84-98)	115/175	40	35(26-44)	43(34-52)	91(78-98)	134/295	45.4	96	72(63-79)	161/295	124	77(70-83)	72(64-80)	77(69-83)
30-44 y	131/366	35.8	124	95(89-98)	235/366	78	33(27-40)	44(38-50)	92(84-97)	211/495	42.6	144	68(62-75)	284/495	244	86(81-90)	78(72-84)	79(74-83)
≥ 45 y	31/106	29.2	29	94(79-99)	75/106	26	35(24-47)	37(27-49)	93(77-99)	46/172	26.7	27	59(43-73)	126/172	112	89(82-94)	66(49-80)	86(78-91)
HG cytology	164/289	56.7	162	99(96-100)	125/289	14	11(6-18)	59(53-65)	88(62-98)	305/454	67.2	228	75(70-80)	149/454	86	58(49-66)	78(73-83)	53(45-61)
LG cytology	58/358	16.2	47	81(69-90)	300/358	130	43(38-49)	22(16-28)	92(87-96)	86/508	16.9	39	45(35-57)	422/508	394	93(91-96)	58(46-70)	89(86-92)
ASC-H, HSIL	162/286	56.6	161	99(97-100)	124/286	13	10(6-17)	59(53-65)	93(66-100)	292/437	66.8	220	75(70-80)	145/437	85	59(50-67)	79(73-83)	54(46-62)
ASC-US,LSIL	55/330	16.7	45	82(69-91)	275/330	119	43(37-49)	22(17-29)	92(86-96)	81/480	16.9	36	44(33-56)	399/480	372	93(90-96)	57(44-70)	89(86-92)
Glandular	5/31	16.1	3	60(15-95)	26/31	12	46(27-67)	18(4-43)	86(57-98)	18/45	40.0	11	61(36-83)	27/45	23	85(66-96)	73(45-92)	77(58-90)
1 biopsy	11/165	6.7	7	64(31-89)	154/165	78	51(43-59)	8(4-17)	95(88-99)	14/109	12.8	5	36(13-65)	95/109	94	99(94-100)	83(36-100)	91(84-96)
2 biopsies	78/263	29.7	70	90(81-96)	185/263	43	23(17-30)	33(27-40)	84(71-93)	112/420	26.7	66	59(49-68)	308/420	276	90(86-93)	67(57-77)	86(81-89)
≥3 biopsies	43/84	51.2	43	100	41/84	0	0	51	0	168/305	55.1	113	67(60-74)	137/305	92	67(59-75)	72(64-78)	63(54-70)
LLETZ	90/113	79.6	89	99(94-100)	23/113	1	4(0-22)	80(72-87)	50(1-99)	97/118	82.2	83	86(77-92)	21/118	8	38(18-62)	87(78-93)	36(17-59)

¹Colposcopic impression and/or ZedScan result of CIN2+ of histologically confirmed CIN2+ cases.²Colposcopic impression of CIN2+ of histologically confirmed CIN2+ cases.³Colposcopic impression and ZedScan result less than CIN2 of histologically confirmed cases <CIN2.⁴Colposcopic impression less than CIN2 of histologically confirmed cases <CIN2

AGC-FN: atypical glandular cells that favour neoplasia; AGC-NOS: atypical glandular cells not otherwise specified; ASC-H: atypical squamous cells that cannot exclude HSIL; ASC-US: atypical squamous cells of undetermined significance CIN: cervical intraepithelial neoplasia; HG: high grade; HSIL: high-grade squamous intraepithelial lesion; LG: low grade; LLETZ: large loop excision of the transformation zone; LSIL: low-grade squamous intraepithelial lesion; NPV: negative predictive value; PPV: positive predictive value; TZ: transformation zone