

## Supplemental Online Content

Serrano E, Voldal EC, Machado-Aranda D, et al; for the Writing Group for the CODA Collaborative. Trial participation and outcomes among English-speaking and Spanish-speaking patients with appendicitis randomized to antibiotics: a secondary analysis of the CODA randomized clinical trial. *JAMA Surg*. Published online June 28, 2023. doi:10.1001/jamasurg.2023.2277

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**eReference**

This supplemental material has been provided by the authors to give readers additional information about their work.

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**eTable 1. additional baseline characteristics for participants randomized to antibiotics or appendectomy**

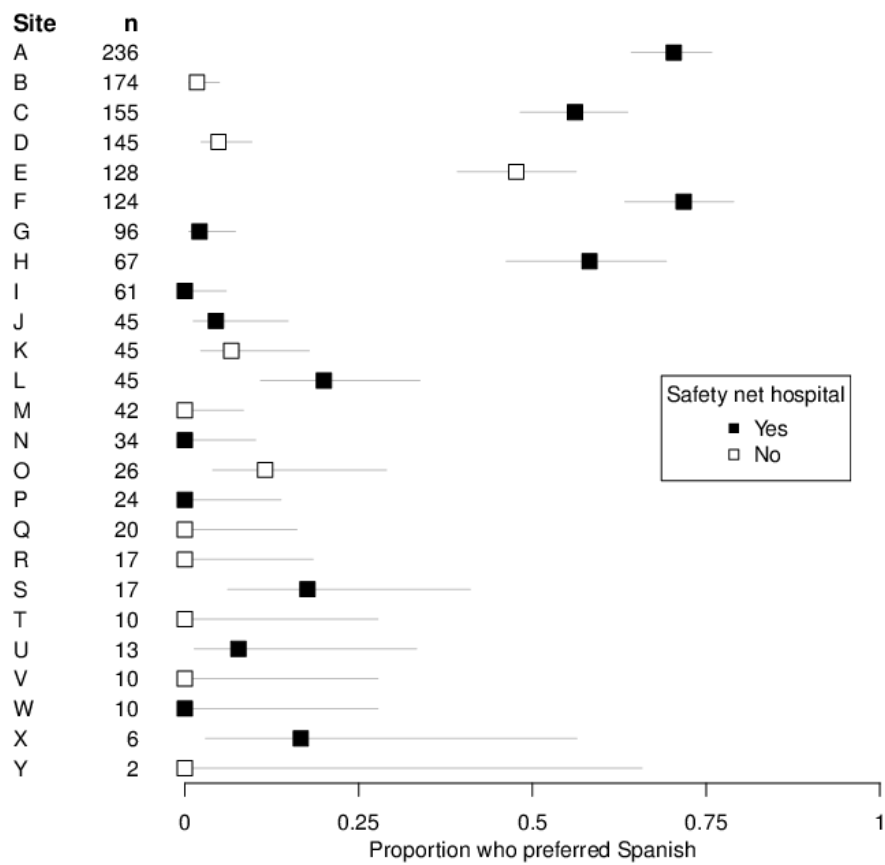
		Overall (n=1552)	English (n=1076)	Spanish (n=476)
Age, years (%)	[18,35)	761 (49)	568 (53)	193 (41)
	[35,50)	493 (32)	310 (29)	183 (38)
	[50,65)	239 (15)	155 (14)	84 (18)
	[65,100)	59 (4)	43 (4)	16 (3)
Gender same as sex (%)	No	14 (1)	8 (1)	6 (1)
	Yes	1492 (99)	1045 (99)	447 (99)
Insurance (%)	Commercial	640 (42)	610 (58)	30 (7)
	Medicare or Tricare	178 (12)	118 (11)	60 (13)
	Medicaid or state	265 (18)	142 (13)	123 (27)
	Other	77 (5)	43 (4)	34 (7)
	None	354 (23)	143 (14)	211 (46)
Education (%)	Less than high school	324 (21)	46 (4)	278 (60)
	High school or GED	309 (20)	184 (17)	125 (27)
	Some college	296 (19)	265 (25)	31 (7)
	Associate degree	93 (6)	91 (9)	2 (0)
	Occupational/technical/vocational	56 (4)	42 (4)	14 (3)
	Bachelor's degree	284 (19)	276 (26)	8 (2)
	Master's degree	115 (8)	108 (10)	7 (2)
	Professional degree	37 (2)	37 (3)	0 (0)
	Doctoral degree	16 (1)	16 (2)	0 (0)
Charlson (mean (SD))		0.24 (0.53)	0.24 (0.54)	0.25 (0.51)
Charlson above 0 (%)	No	1232 (80)	861 (80)	371 (78)
	Yes	315 (20)	210 (20)	105 (22)
Body mass index (mean (SD))		28.8 (6.47)	28.7 (7.02)	29.0 (4.89)
Body mass index (%)	Less than 25	376 (29)	303 (32)	73 (19)
	[25,30)	466 (35)	296 (32)	170 (45)
	[30,35)	283 (21)	188 (20)	95 (25)
	35 and above	192 (15)	149 (16)	43 (11)

Imaging: CT only (%)	No	317 (20)	239 (22)	78 (16)
	Yes	1235 (80)	837 (78)	398 (84)
Imaging: Ultrasound only (%)	No	1498 (97)	1027 (95)	471 (99)
	Yes	54 (3)	49 (5)	5 (1)
Multiple imaging types (%)	No	1290 (83)	887 (82)	403 (85)
	Yes	262 (17)	189 (18)	73 (15)
Alvarado (mean (SD))		6.63 (1.66)	6.54 (1.69)	6.81 (1.58)
Fever (%)	No	1172 (76)	836 (78)	336 (71)
	Yes	379 (24)	239 (22)	140 (29)
White blood cell count (thousand/microL) (mean (SD))		13.06 (4.06)	12.82 (4.05)	13.61 (4.05)
Appendiceal diameter, mm (mean (SD))		11.39 (2.86)	11.44 (2.92)	11.27 (2.74)
Appendiceal diameter, mm (%)	8 or smaller	186 (14)	133 (14)	53 (13)
	(8,10]	389 (29)	265 (29)	124 (31)
	larger than 10	758 (57)	529 (57)	229 (56)
Abscess on imaging (%)	No	1543 (100)	1071 (100)	472 (99)
	Yes	2 (0)	1 (0)	1 (0)
	Ambiguous	4 (0)	2 (0)	2 (0)
Perforation on imaging (%)	No	1433 (97)	978 (96)	455 (97)
	Yes	17 (1)	11 (1)	6 (1)
	Ambiguous	34 (2)	27 (3)	7 (1)
Periappendiceal fat on imaging (%)	None or not mentioned	371 (25)	276 (27)	95 (20)
	Mild	419 (28)	262 (26)	157 (33)
	Moderate	123 (8)	80 (8)	43 (9)
	Severe (phlegmon)	28 (2)	16 (2)	12 (3)
	Present but unspecified	551 (37)	388 (38)	163 (35)
Periappendiceal fluid on imaging (%)	No	1154 (74)	772 (72)	382 (80)
	Yes	395 (26)	301 (28)	94 (20)

Footnote: Alvarado scores range from 0 to 10, with higher scores indicating a higher likelihood of having appendicitis.

Footnote: Scores on the modified Charlson comorbidity index range from 0 to 40, with lower scores indicating fewer coexisting conditions and a lower short-term risk of death.

**eFigure 1. description of sites in the CODA trial, ordered by number of participants in each site who were randomized to antibiotics or appendectomy (n).**



Footnote: Safety net hospitals were defined as hospitals that provide health care regardless of ability to pay<sup>1</sup>

**eTable 2. Baseline characteristics of participants who were randomized to either antibiotics or appendectomy and recruited from the five sites that recruited many Spanish-speaking patients.**

		Overall (n=710)	English (n=268)	Spanish (n=442)
Race (%)	Asian	28 (4)	28 (11)	0 (0)
	Black	61 (9)	46 (17)	15 (3)
	White	309 (45)	106 (40)	203 (47)
	Multiple/Other*	296 (43)	83 (32)	213 (49)
Hispanic (%)	No	106 (15)	105 (39)	1 (0)
	Yes	604 (85)	163 (61)	441 (100)
Age, years (mean (SD))		38.0 (13.0)	34.4 (12.4)	40.1 (12.9)
Sex (%)	Male	461 (65)	175 (65)	286 (65)
	Female	249 (35)	93 (35)	156 (35)
Insurance (%)	Commercial	89 (13)	65 (25)	24 (6)
	Medicare or Tricare	96 (14)	37 (14)	59 (14)
	Medicaid or state	188 (27)	65 (25)	123 (29)
	Other or none	321 (46)	97 (37)	224 (52)
Below federal poverty level (%)	No	123 (29)	77 (48)	46 (17)
	Yes	301 (71)	84 (52)	217 (83)
Education (%)	Some beyond high school/GED	232 (33)	176 (66)	56 (13)
	High school/GED	184 (26)	67 (25)	117 (27)
	Less than high school	286 (41)	22 (8)	264 (60)
Health literacy help (%)	Never or rarely	485 (70)	228 (87)	257 (60)
	Sometimes or more	206 (30)	33 (13)	173 (40)
Employment and activity (%)	Employed (active some of the time or less)	215 (31)	80 (30)	135 (31)
	Employed (active most or all of the time)	272 (39)	95 (36)	177 (40)
	Student/unempl oyed/retired/oth er	215 (31)	89 (34)	126 (29)
Duration of symptoms (%)	Less than a day	131 (18)	57 (21)	74 (17)
	1 or more days	579 (82)	211 (79)	368 (83)

Appendicolith (%)	No	525 (74)	186 (69)	339 (77)
	Yes	185 (26)	82 (31)	103 (23)

\*Other race includes: American Indian, Alaska Native, Native Hawaiian, Pacific Islander, and other/not

listed. The most common response for 'other' race was Hispanic.

**eTable 3. Outcomes for participants randomized to antibiotics who were recruited from the five sites that recruited many Spanish patients.**

		Overall (n=352)	English (n=131)	Spanish (n=221)
Appendectomy within 30d (%)	Yes	74 (21)	25 (19)	49 (22)
	No	265 (75)	101 (77)	164 (74)
	Lost to follow-up	13 (4)	5 (4)	8 (4)
Symptom resolution at 30d (%)	No	99 (34)	35 (33)	64 (34)
	Yes	196 (66)	71 (67)	125 (66)
EQ-5D at 30d (mean (SD))		0.93 (0.12)	0.91 (0.14)	0.93 (0.11)
Days of work missed within 30d (mean (SD))		6.03 (7.20)	4.99 (6.58)	6.57 (7.47)

## eAppendix 1. Missing data

Data on missing appendectomy status is presented in Table 2. Outcomes involving emergency department/urgent care visits and overnight hospital stays within 30 days were missing only if participants did not return their 30-day survey. For other variables, information about missing data is presented in the tables below.

Table: Details about missing data from Table 1. Cells are count (percent) of participants who were missing information on each characteristic, broken down by language.

	Overall (n=1552)	English (n=1076)	Spanish (n=476)
Race	22 (1)	10 (1)	12 (3)
Hispanic	0 (0)	0 (0)	0 (0)
Age	0 (0)	0 (0)	0 (0)
Sex	0 (0)	0 (0)	0 (0)
Insurance	38 (2)	20 (2)	18 (4)
Below federal poverty level	460 (30)	266 (25)	194 (41)
Education	22 (1)	11 (1)	11 (2)
Health literacy help	61 (4)	45 (4)	16 (3)
Employment and activity	45 (3)	40 (4)	5 (1)
Duration of symptoms	2 (0)	2 (0)	0 (0)
Appendicolith	0 (0)	0 (0)	0 (0)

Table: Details about missing data from Table 2. Cells are count (percent) of participants who were missing information on each outcome, broken down by language.

	Overall (n=776)	English (n=538)	Spanish (n=238)
Symptom resolution at 7d	62 (8)	44 (8)	18 (8)
Symptom resolution at 14d	91 (12)	63 (12)	28 (12)
Symptom resolution at 30d	100 (13)	66 (12)	34 (14)
EQ-5D at 30d	93 (12)	63 (12)	30 (13)
Decisional regret 30d	118 (15)	70 (13)	48 (20)
Treatment satisfaction 30d	106 (14)	72 (13)	34 (14)
Days of work missed 30d	285 (37)	209 (39)	76 (32)



## **eAppendix 2. The CODA Trial Sites and Site Leads**

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## eReference

1. Institute of Medicine (US) Committee on Assuring the Health of the Public in the 21st Century. The Future of the Public's Health in the 21st Century. National Academies Press (US); 2002.