

Table 1a. Questionnaire variables and their proportions for descriptive purposes.

Cases = EGGD present (horses with pure EGGD and horses with EGGD and ESGD); controls = healthy horses and horses with ESGD without EGGD; n= number of responses for each variable; CI = confidence interval.

No	Variable	Cases		Controls	
		n	% (95% CI)	n	% (95% CI)
1	Age (years)	83		34	
	1-3	1	1.2 (0.1-05.5)	1	2.9 (0.3-12.9)
	4-6	18	21.7 (13.9-31.4)	6	17.6 (7.7-32.8)
	7-10	32	38.6 (28.6-49.3)	13	38.2 (23.4- 55.0)
	11-15	20	24.1 (15.9-34.1)	10	29.4 (16.2-45.9)
	16-20	10	12.0 (6.4-20.3)	2	5.9 (1.2-17.6)
	21-25	2	2.4 (0.5-7.5)	2	5.9 (1.2-17.6)
2	Breed	82		34	
	Icelandic horse	1	1.2 (0.1-5.6)	1	2.9 (0.3- 12.9)
	Standardbred	4	4.9 (1.7-11.2)	3	8.8 (2.5-21.7)
	Other breed	5	6.1 (2.4-12.8)	5	14.7 (5.8-29.3)
	Pony	3	3.7 (0.1-9.4)	7	20.6 (9.7-36.2)
	Warmblood	52	63.4 (52.7-73.2)	15	44.1 (28.5-60.7)
	Finnhorse	17	20.7 (13.1-30.4)	3	8.8 (2.5-21.7)
3	Sex	83		34	
	Male	47	56.6 (45.9-66.9)	21	61.8 (45.0-76.6)
	Female	36	43.4 (33.1-54.1)	13	38.2 (23.4-55.0)
4	Forage location	83		34	
	Ground	66	79.5 (69.9-87.1)	27	79.4 (63.8-90.3)
	Bucket	10	15.2 (6.4-20.3)	3	8.8 (2.5-21.7)
	Haynet	7	8.4 (3.9-15.8)	4	11.8 (1.4-25.6)
5	Eating habits	83		34	
	With other horses	22	26.5 (17.9-36.7)	7	20.6 (9.7-36.2)
	Alone	55	66.3 (55.7-75.7)	24	70.6 (54.1-83.8)
	Other	6	7.2 (3.1-14.3)	3	8.8 (2.5-21.7)
6	Water source at the stable	83		34	
	Ground well	45	54.2 (43.5-64.6)	18	52.9 (36.5-68.9)
	Communal	37	44.6 (34.2-55.3)	16	47.1 (31.1-63.5)
7	Water source at the paddock	78		34	
	Ground well	40	51.3 (40.3-62.2)	19	55.9 (39.3-71.5)
	Communal	34	43.6 (33.0-54.7)	12	38.2 (23.4-55.0)
	Other	4	5.1 (1.8-11.7)	2	5.9 (1.2-17.6)

8	Water	83		34	
	From a bucket	63	75.9 (65.9-84.1)	24	70.6 (54.1-83.8)
	From an automat	20	24.1 (15.9-34.1)	10	29.4 (16.2-45.9)
9	Living location	83		34	
	Loose housing system	5	6.0 (2.3-12.7)	2	5.9 (1.2-17.6)
	Stable	77	92.8 (85.7-96.9)	32	94.1 (82.4-98.8)
	Other	1	1.2 (0.1-5.6)	0	0.0 (0.0-7.1)
10	Stable cleaning freq.	82		34	
	Once a day	54	65.9 (55.2-75.4)	30	88.2 (74.4-95.9)
	Twice a day	24	29.3 (20.3-39.7)	4	11.8 (4.1-25.6)
	3 times a day	1	1.2 (0.1-5.6)	0	0.0 (0.0-7.1)
	Less than once a day	3	3.7(1.0-9.4)	0	0.0 (0.0-7.1)
11	Bedding material	83		34	
	Other	4	4.8 (1.6-11.1)	2	5.9 (1.2-17.6)
	Peat	39	47.0 (36.5-57.7)	16	47.1 (31.1-63.5)
	Shavings	20	24.1 (15.9-34.1)	6	17.6 (7.7-32.8)
	Straw/straw pellets	18	21.7 (13.9-31.4)	10	29.4 (16.2-45.9)
	Woodchips	1	1.2 (0.1-5.5)	0	0.0 (0.0-7.1)
	Other	1	1.2 (0.1-5.5)	0	0.0 (0.0-7.1)
12	No of horses in the stable	82		33	
	15	20	24.4 (16.1-34.5)	9	27.3 (14.4-43.9)
	21	31	37.8 (27.9-48.6)	6	18.2 (8.0-33.7)
	3	12	14.6 (8.3-23.5)	7	21.2 (10.0-37.2)
	7	19	23.2 (15.1-33.1)	11	33.3 (19.2-50.3)
	No other horses	1	1.2 (0.1-5.6)	1	3.0 (0.3-13.3)
13	No of caretakers	83		34	
	1	14	16.9 (10.0-26.0)	5	14.7 (5.8-29.3)
	2	29	34.9 (25.3-45.6)	13	38.2 (23.4-55.0)
	3	23	27.7 (19.0-38.0)	10	29.4 (16.2-45.9)
	4	11	13.3 (7.3-21.8)	2	5.9 (1.2-17.6)
14	No of owners (horse's history)	77		30	
	1	14	18.2 (10.8-27.9)	5	16.7 (6.7-32.7)
	2	29	37.7 (27.5-48.8)	13	43.3 (26.9-61.0)
	3	23	29.9 (20.5-40.7)	10	33.3 (18.6-51.1)
	4	11	14.3 (7.8-23.4)	2	6.7 (1.4-19.7)
15	Contact with other stables	82		33	
	No	67	81.7 (72.3-88.9)	29	87.9 (73.7-95.8)
	Yes	15	18.3 (11.1-27.7)	4	12.1 (4.2-26.3)

16	Stable change	82		33	
	No	40	48.8 (38.2-59.5)	15	45.5 (29.4-62.2)
	Yes	42	51.2 (40.5-61.8)	18	54.5 (37.8-70.6)
17	Traveling abroad	83		33	
	No	75	90.4 (82.6-95.3)	30	90.9 (77.7-97.4)
	Yes	8	9.6 (4.7-17.4)	3	9.1 (2.6-22.3)
18	Transporting frequency	83		34	
	Very seldom	17	20.5 (12.9-30.1)	9	26.5 (14.0-42.8)
	Less than once/month	27	32.5 (23.2-43.1)	13	38.2 (23.4-55.0)
	Once/month	32	38.6 (28.6-49.3)	9	26.5 (14.0-42.8)
	Once/week	7	8.4 (3.9-15.8)	3	8.8 (2.5-21.7)
19	Time spent outdoors at one time/h	75		34	
	2	3	4.0 (1.1-10.3)	0	0.0 (0.0-7.1)
	4	27	36.0 (25.8-47.2)	9	26.5 (14.0-42.8)
	6	48	64.0 (52.8-74.2)	22	64.7 (48.0-79.1)
	free access	5	6.7 (2.4-14.0)	3	8.8 (2.5-21.7)
20	Sand paddock	83		34	
	No	66	79.5 (69.9-87.1)	24	70.6 (54.1-83.8)
	Yes	17	20.5 (12.9-30.1)	10	29.4 (16.2-45.9)
21	Grass paddock	83		34	
	No	66	79.5 (69.9-87.1)	25	73.5 (57.2-86.0)
	Yes	17	20.5 (12.9-30.1)	9	26.5 (14.0-42.8)
22	Access to pasture	83		34	
	No	16	19.3 (11.9-28.7)	3	8.8 (2.5-21.7)
	Yes	67	80.7 (71.3-88.1)	31	91.2 (78.3-97.5)
23	Other paddock type	83		34	
	No	7	8.4 (3.9-15.8)	3	8.8 (2.5-21.7)
	Yes	76	91.6 (84.2-96.1)	32	91.2 (78.3-97.5)
24	On paddock	82		34	
	With many other horses	23	28.0 (19.2-38.4)	7	20.6 (9.7-36.2)
	With one other horse	24	29.3 (20.3-39.7)	9	26.5 (14.0-42.8)
	Alone	35	42.7 (32.4-53.5)	18	52.9 (36.5-68.9)
25	Summer pasture	82		34	
	No	16	19.5 (12.1-29.1)	6	17.6 (7.7-32.8)
	Yes	66	80.5 (70.9-87.9)	28	82.4 (67.2-92.3)
26	Time at pasture/months	70		28	
	0.5	12	17.1 (9.7-27.2)	3	10.7 (3.1-25.9)

	1	8	11.4 (5.6-20.4)	3	10.7 (3.1-25.9)
	2	14	20.0 (12.0-30.5)	5	17.9 (7.2-34.8)
	3	25	35.7 (25.2-47.3)	11	39.3 (23.0-57.7)
	4	11	15.7 (8.6-25.5)	5	17.9 (7.2-34.8)
	5	0	0.0 (0.0-3.5)	1	3.6 (0.4-15.5)
27	Trained while on pasture	69		27	
	No	13	18.8 (11.0-29.2)	7	25.9 (12.4-44.3)
	Yes	56	81.2 (70.8-89.0)	20	74.1 (55.7-87.6)
28	Actively competing	83		34	
	No	43	51.8 (41.2-62.3)	22	64.7 (87.1-99.7)
	Yes	40	48.2 (37.7-58.8)	12	35.3 (20.9-52.0)
29	Discipline	50		15	
	Showjumping	20	40.0 (27.3-53.8)	6	40.0 (18.8-64.7)
	Dressage	20	40.0 (27.3-53.8)	6	40.0 (18.8-64.7)
	Trotting	8	16.0 (7.9-27.9)	1	6.7 (0.7-27.2)
	Icelandic horse gaited test	1	2.0 (0.2-9.0)	0	0.0 (0.0-15.2)
	Eventing	1	2.0 (0.2-9.0)	2	13.3 (2.9-36.3)
30	Use at riding school	82		34	
	No	75	91.5 (84.1-96.1)	33	97.1(87.1-99.7)
	Yes	7	8.5 (3.9-16.0)	1	2.9 (0.3-12.9)
31	No of riders	77		30	
	1	23	29.9 (20.5-40.7)	14	46.7 (29.8-64.1)
	2	32	41.6 (31.0-52.7)	13	43.3 (26.9-61.0)
	3	17	22.1 (13.9-32.3)	3	10.0 (2.4-24.3)
	4	2	2.6 (0.5-8.1)	0	0.0 (0.0-8.0)
	5	3	3.9 (1.1-10.0)	0	0.0 (0.0-8.0)
32	Previous diagnosis of EGUS	71		31	
	No	37	52.1 (40.6-63.5)	18	58.1(40.6-74.1)
	Yes	34	47.9 (36.5-59.4)	13	41.9(25.9-59.4)
33	Recurrent EGUS	68		28	
	No	56	82.3 (72.0-90.0)	27	96.4 (84.5-99.6)
	Yes	12	17.6 (10.0-28.0)	1	3.6 (0.4-15.5)
34	Sand enteropathy	72		30	
	No	52	72.2 (61.2-81.5)	19	63.3 (45.5-78.7)
	Yes	20	27.8 (18.5-38.8)	11	36.7 (21.3-54.5)
35	Weight loss	72		31	
	No	39	54.2 (42.7-65.3)	16	51.6 (34.5-68.4)
	Yes	33	45.8 (34.7-57.3)	15	48.4 (31.6-65.5)
36	Colic	76		32	
	No	47	61.8 (50.6-72.2)	14	43.8 (27.7-60.9)
	Yes	29	38.2 (27.8-49.4)	18	56.3 (39.1-72.3)

37	Diarrhoea	72		32	
	No	41	56.9 (45.4-67.9)	18	56.3 (39.1-72.3)
	Yes	31	43.1 (32.1-54.6)	14	43.8 (27.7-60.9)
38	Positive FEC	71		31	
	No	62	87.3 (75.1-91.6)	26	83.9 (68.2-93.6)
	Yes	9	12.7 (6.4-21.6)	5	16.1 (6.4-31.8)
39	Deworming freq.	81		34	
	Less often than twice/year	5	6.2 (2.4-13.0)	3	8.8 (2.5-21.7)
	Twice/year	53	65.4 (54.7-75.1)	19	55.9 (39.3-71.5)
	4 times/year	21	25.9 (17.3-36.2)	11	32.4 (18.6-49.0)
	More often than 4 times/year	1	1.2 (0.1-5.6)	0	0.0 (0.0-7.1)
	No deworming	1	1.2 (0.1-5.7)	1	2.9 (0.3-12.9)
40	Use of antihelminthics	83		34	
	No	19	22.9 (14.9-32.8)	8	23.5 (11.8-39.5)
	Yes	64	77.1 (67.2-85.1)	26	76.5 (60.5-88.2)
41	EHV vaccination	49		21	
	No	31	63.3 (43.9-75.7)	12	57.1 (36.2-76.3)
	Yes	18	36.7 (24.3-50.7)	9	42.9 (23.7-63.8)
42	Rabies vaccination	47		18	18
	No	34	72.3 (58.5-83.5)	12	66.7 (43.7-84.7)
	Yes	13	27.7 (16.5-41.5)	6	33.3 (15.3-56.3)
43	Botulism vaccination	40		17	
	No	37	92.5 (83.1-97.8)	14	82.4 (60.0-94.8)
	Yes	3	7.5 (2.2-18.7)	3	17.6 (5.2-40.0)
44	Use of NSAIDs	83		34	
	No	52	62.7 (52.0-72.5)	22	64.7 (87.1-99.7)
	Yes	31	37.3 (27.5-48.0)	12	35.3 (20.9-52.0)
45	Use of neutraceuticals for prevention of EGUS	79		30	
	No	61	77.2 (67.1-85.4)	23	76.7 (59.6-88.9)
	Yes	18	22.8 (14.6-32.9)	7	23.3 (11.1-40.4)
46	Hay type	83		34	
	Hay	39	47.0 (36.5-57.7)	10	29.4 (16.2-45.9)
	Haylage	20	24.1 (15.9-34.1)	11	32.4 (18.6-49.0)
	Hay & haylage	24	28.9 (20.0-39.3)	13	38.2 (23.4-55.0)
47	Hay amount kg/d	64		27	
	5-7	5	7.8 (3.0-16.3)	7	25.9 (12.4-44.3)
	8-10	12	18.8 (10.7-29.6)	4	14.8 (5.2-31.5)
	10-12	30	46.9 (35.0-59.0)	7	41.2 (12.4-44.3)
	>12	17	26.6 (16.9-38.2)	9	52.9 (17.9-52.1)
48	Concentrate amount	56		20	

l/vrk				
0.2-0.9	7	12.5 (5.8-23.0)	4	20.0 (7.2-40.8)
1.0-1.5	9	16.1 (8.3-27.3)	4	20.0 (7.2-40.8)
1.6-2.0	10	17.9 (9.6-29.4)	6	30.0 (13.6-51.7)
2.1-2.5	2	3.6 (0.7-11.0)	0	0.0 (0.0-0.117)
2.6-3.0	7	12.5 (5.8-23.0)	2	10.0 (2.1-28.4)
3.1-3.5	1	1.8 (0.2-8.0)	0	0.0 (0.0-0.117)
3.6-4.0	7	12.5 (5.8-23.0)	1	5.0 (0.5-21.1)
4.1-4.5	5	8.9 (3.5-18.5)	2	10.0 (2.1-28.4)
4.6-5.0	3	5.4 (1.5-13.6)	1	15.0 (4.4-34.9)
> 5.0	5	8.9 (3.5-18.5)	0	0.0 (0.0-0.117)
49 Gastroscopy	83		34	
Hospitalized	17	20.0 (20.0-39.3)	14	41.2 (25.9-57.9)
Outpatient	66	60.7 (60.7-80.0)	20	58.8 (42.1-74.1)