

Table S1. Horse information, dose levels and clinical findings

HORSE	1	2	3	4	5	6
Horse sex	F	MC	F	F	F	F
Horse age (years)	6	5	7	4	13	17
Horse weight (kg)	486	460	481	542	466	560
Horse breed	STB	STB	STB	STB	Mixed	Mixed
Dose (volume (L) x concentration)	0.5 L x 1X	1.0 L x 1X	3.0 L x 2X	3.0 L x 2X	3.0 L x 2X	3.0 L x 2X
Site of toxins administration	Duodenum	Duodenum	Duodenum	Duodenum	Duodenum	Stomach
Clinical findings	Not observed	Not observed	Observed	Not observed	Observed	Not observed
Ultrasound findings	Not observed	Not observed	Observed	Not observed	Observed	Not observed
CBC	WNL	WNL	Leukopenia	WNL	Leukopenia	WNL
SAA	WNL	WNL	WNL	WNL	↑ @ 24 h	↑ @ 24, 48 h
Fibrinogen	WNL	WNL	WNL	WNL	WNL	WNL
Peritoneal fluid TP/TNC	WNL	WNL	WNL	WNL	WNL	WNL

Clinical features and dosing information for all 6 horses. F = female, MC = male castrated, STB = Standardbred. Observed clinical and ultrasound findings for horse 3 and 5 are described in the text. For the CBC, SAA, fibrinogen and peritoneal fluid, WNL = within normal limits; all values assayed were within the reference range for horses. For horse 3 and 5, the animals were leukopenic, but other parameters in the CBC were WNL. Horse 5 and 6 had elevated SAA values only at the times listed.

Table S2. Cumulative histologic lesion scores for the different gastrointestinal tract segments of 6 horses inoculated with *Clostridium difficile* toxins.

<i>Gastro-intestinal segment</i>	<i>Cumulative Lesion Score</i>						
	HORSE	1	2	3	4	5	6
Stomach		0.0	1.5	0.5	1.0	3.0	1.5
Pylorus		2.5	3.0	3.0	4.0	1.5	1.5
Duodenum		0.5	0	12.0	1.0	15.0	0.5
Jejunum		2.0	1.0	11.0	1.5	10.0	1.0
Ileum		0	2.0	4.0	2.0	5.0	1.0
Cecum		1.0	1.0	2.0	5.0	6.0	1.0
Large colon		0	3.0	5.0	2.0	3.0	4.0
Overall lesion score		6.0	11.5	37.5	16.5	43.5	10.5

Histologic sections were screened by a board certified pathologist (ACVP) blinded to treatment. Sections were graded for: epithelial desquamation/necrosis, lamina proprial necrosis, villous blunting (small intestine sections only), inflammation, hemorrhage, and submucosal edema with each lesion graded from 0.0 to 5.0. Values presented here represent the total score for all criteria evaluated as well as the overall lesion score being a sum of individual tissue total scores.

Table S3. Histologic scores of duodenal lesions of 6 horses inoculated with *Clostridium difficile* toxins.

<i>Duodenum</i>	<i>Lesion Score</i>						
	HORSE	1	2	3	4	5	6
Epithelial desquamation/necrosis		0.5	0	3.0	0	3.0	0
Lamina proprial necrosis		0	0	1.0	0	2.0	0
Villous blunting		0	0	2.0	0	3.0	0
Inflammation		0	0	2.0	0	3.0	0
Hemorrhage		0	0	3.0	0	3.0	0
Submucosal edema		0	0	1.0	1.0	1.0	0.5
Overall lesion score		0.5	0	12.0	1.0	15.0	0.5

Histologic sections were screened by a board certified pathologist (ACVP) blinded to treatment with each lesion graded from 0.0 to 5.0. Values presented here represent the score for all criteria evaluated as well as the overall lesion score for the duodenum.

Table S4. Histologic scores of jejunal lesions of 6 horses inoculated with *Clostridium difficile* toxins.

<i>Jejunum</i>	<i>Lesion Score</i>						
	HORSE	1	2	3	4	5	6
Epithelial desquamation/necrosis		0.5	0	2.0	0	2.0	0
Lamina proprial necrosis		0	0	1.0	0	0	0
Villous blunting		0	0	1.0	0	2.0	0
Inflammation		0.5	0.5	3.0	0.5	2.0	0
Hemorrhage		0	0.5	3.0	0	3.0	0
Submucosal edema		1.0	0	1.0	1.0	1.0	1.0
Overall lesion score		2.0	1.0	11.0	1.5	10.0	1.0

Histologic sections were screened by a board certified pathologist (ACVP) blinded to treatment with each lesion graded from 0.0 to 5.0. Values presented here represent the score for all criteria evaluated as well as the overall lesion score for the jejunum.

Table S5. Histologic scores of stomach lesions of 6 horses inoculated with *Clostridium difficile* toxins.

<i>Stomach</i>	<i>Lesion Score</i>						
	HORSE	1	2	3	4	5	6
Epithelial desquamation/necrosis		0	0	0	0	0.5	0
Lamina proprial necrosis		0	0	0	0	0	0
Inflammation		0	0	0	1.0	1.0	1.0
Hemorrhage		0	0.5	0	0	0	0
Submucosal edema		0	1.0	0.5	0	1.5	0.5
Overall lesion score		0	1.5	0.5	1.0	3.0	1.5

Histologic sections were screened by a board certified pathologist (ACVP) blinded to treatment with each lesion graded from 0.0 to 5.0. Values presented here represent the score for all criteria evaluated as well as the overall lesion score for the stomach.

Table S6. Histologic scores of pylorus lesions of 6 horses inoculated with *Clostridium difficile* toxins.

<i>Pylorus</i>	<i>Lesion Score</i>						
	HORSE	1	2	3	4	5	6
Epithelial desquamation/necrosis		0.5	1.0	1.0	1.0	0	0
Lamina proprial necrosis		0	0	0	0	0	0
Inflammation		2.0	2.0	2.0	1.0	1.0	1.0
Hemorrhage		0	0	0	1.0	0.5	0
Submucosal edema		0	0	0	1.0	0	0.5
Overall lesion score		2.5	3.0	3.0	4.0	1.5	1.5

Histologic sections were screened by a board certified pathologist (ACVP) blinded to treatment with each lesion graded from 0.0 to 5.0. Values presented here represent the score for all criteria evaluated as well as the overall lesion score for the pylorus.

Table S7. Histologic scores of ileal lesions of 6 horses inoculated with *Clostridium difficile* toxins.

<i>Ileum</i>	<i>Lesion Score</i>						
	HORSE	1	2	3	4	5	6
Epithelial desquamation/necrosis		0	1.0	1.0	1.0	1.0	0
Lamina proprial necrosis		0	0	0	0	0	0
Villous blunting		0	0	0	0	0	0
Inflammation		0	1.0	1.0	0.5	1.0	0
Hemorrhage		0	0	2.0	0.5	2.0	1.0
Submucosal edema		0	0	0	0	1.0	0
Overall lesion score		0	2.0	4.0	2.0	5.0	1.0

Histologic sections were screened by a board certified pathologist (ACVP) blinded to treatment with each lesion graded from 0.0 to 5.0. Values presented here represent the score for all criteria evaluated as well as the overall lesion score for the ileum.

Table S8. Histologic scores of cecal lesions of 6 horses inoculated with *Clostridium difficile* toxins.

<i>Cecum</i>	<i>Lesion Score</i>						
	HORSE	1	2	3	4	5	6
Epithelial desquamation/necrosis		0	0	0	0	1.0	0
Lamina proprial necrosis		0	0	0	0	0	0
Inflammation		0	0	0	1.0	1.0	0
Hemorrhage		0	0	0	2.0	2.0	0
Submucosal edema		1.0	1.0	2.0	2.0	2.0	1.0
Overall lesion score		1.0	1.0	2.0	5.0	6.0	1.0

Histologic sections were screened by a board certified pathologist (ACVP) blinded to treatment with each lesion graded from 0.0 to 5.0. Values presented here represent the score for all criteria evaluated as well as the overall lesion score for the cecum.

Table S9. Histologic scores of large colon lesions of 6 horses inoculated with *Clostridium difficile* toxins.

<i>Large colon</i>	<i>Lesion Score</i>					
HORSE	1	2	3	4	5	6
Epithelial desquamation/necrosis	0	0	1.0	0	0	0
Lamina proprial necrosis	0	0	0	0	0	0
Inflammation	0	2.0	1.0	0	1.0	0
Hemorrhage	0	0	3.0	1.0	1.0	2.0
Submucosal edema	0	1.0	0	1.0	1.0	2.0
Overall lesion score	0	3.0	5.0	2.0	3.0	4.0

Histologic sections were screened by a board certified pathologist (ACVP) blinded to treatment with each lesion graded from 0.0 to 5.0. Values presented here represent the score for all criteria evaluated as well as the overall lesion score for the large colon.