

ChatGPT versus veterinary students for clinical data extraction: a mixed-methods study

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S1. Extraction Materials

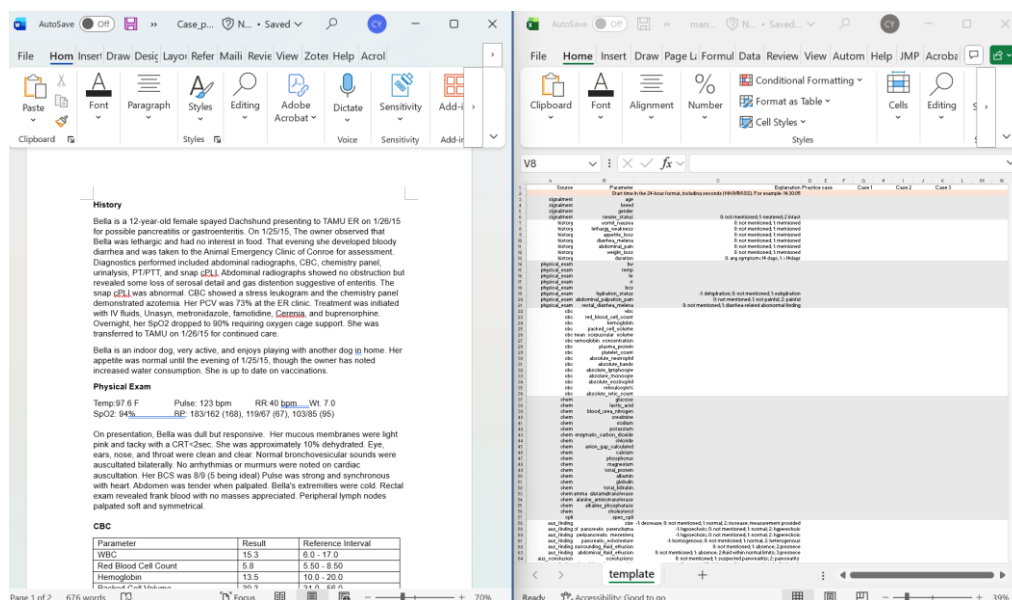
Instructions for Manual Clinical Data Extraction

What you should have:

1. **This instruction**
2. **Synthetic clinical cases:**
 - Case_practice
 - Case 1
 - Case 2
 - Case 3
3. **manual_template.xlsx**
4. **A device to track time in seconds (phone, stopwatch, or computer clock)**

Set up:

- Open **Case_practice** (assignment: **Case 1** → **Case 2** → **Case 3**) word document, and the **manual_template** excel sheet **on one screen** for your convenience.
- Record your **start time** in **row 2** using 24-hour format (**HH:MM:SS**). For example: 14:30:05.
- Follow extraction rules below. Document **extracted values** and **timestamps** in the designated columns:
 - Practice case: column E
 - Case 1: column G
 - Case 2: column I
 - Case 3: column K



Extraction rules:

History

- age: discard "years" or other unit indicators.
- breed: extract exactly as stated in the report.
- gender: male or female.
- neuter_status:
 - 2: "intact" mentioned
 - 1: "neutered," "spayed," or "castrated" mentioned
 - 0: absent info
- vomit_nausea:
 - 1: mentioned (or related terms)
 - 0: not mentioned
- lethargy_weakness:
 - 1: mentioned (or related terms)
 - 0: not mentioned
- appetite_loss:
 - 1: mentioned (or related terms)
 - 0: not mentioned
- diarrhea_melena:
 - 1: mentioned (or related terms)
 - 0: not mentioned
- abdominal_pain:
 - 1: mentioned (or related terms)
 - 0: not mentioned
 - **don't mix information from physical exam section.**
- weight_loss:
 - 1: mentioned (or related terms)
 - 0: not mentioned
- duration:
 - 1: any symptom ≥ 14 days
 - 0: symptom < 14 days

Physical examination

- bw: if in lbs, convert to **kg** but discard unit indicators.
- temp: extract as **°f** but discard unit indicators.
- hr: extract as **/min** but discard unit indicators.
- rr: extract as **/min** but discard unit indicators.
- bcs: enter as provided (e.g., 4/9 or 3/5).
- hydration_status:
 - -1: dehydration
 - 1: euhydration
 - 0: not mentioned
- abdominal_palpation_pain:
 - 2: painful upon palpation
 - 1: not painful
 - 0: not mentioned
- rectal_diarrhea_melena:
 - 1: diarrhea-related abnormal finding
 - 0: not mentioned

CBC

1. Extract numbers, **keep symbols** like "<", ">", or "*".
2. Ignore reference ranges.
3. **Leave blank** if no value is present.
 - wbc
 - red blood cell count
 - hemoglobin
 - packed cell volume
 - mean corpuscular volume
 - mean corpuscular hemoglobin concentration
 - plasma protein
 - platelet count
 - absolute neutrophil
 - absolute bands
 - absolute lymphocyte
 - absolute monocyte
 - absolute eosinophil
 - reticulocyte%
 - absolute_retic_count

Chemistry

1. Extract numbers, keep symbols like "<", ">", or "*".
2. Ignore reference ranges.
3. Leave blank if no value is present.
 - glucose
 - lactic acid
 - blood urea nitrogen
 - creatinine
 - sodium
 - potassium
 - enzymatic carbon dioxide
 - chloride
 - anion gap calculated
 - calcium
 - phosphorus
 - magnesium
 - total protein
 - albumin
 - globulin
 - total bilirubin
 - gamma-glutamyltransferase
 - alanine aminotransferase
 - alkaline phosphatase
 - cholesterol
 - cpli

Ultrasound

- size:
 - -1: decrease
 - 0: not mentioned
 - 1: normal
 - 2: increase
 - measurement provided
- echogenicity of pancreatic parenchyma:
 - -1: hypoechoic
 - 0: not mentioned
 - 1: normal
 - 2: hyperechoic
- echogenicity of peripancreatic mesentery:
 - -1: hypoechoic
 - 0: not mentioned
 - 1: normal
 - 2: hyperechoic
- pancreatic echotexture:
 - -1: homogeneous
 - 0: not mentioned
 - 1: normal
 - 2: heterogeneous
- surrounding fluid: Fluid around pancreas/mesentery, not abdominal effusion.
 - 0: not mentioned
 - 1: absence
 - 2: presence
- abdominal fluid effusion:
 - 0: not mentioned
 - 1: absence
 - 2: fluid within normal limits
 - 3: presence
- conclusions:
 - 0: not mentioned
 - 1: suspected pancreatitis
 - 2: pancreatitis
- chronicity of pancreatitis:
 - 0: not specified
 - 1: acute
 - 2: acute-on-chronic
 - chronic

If general terms such as "**normal pancreas**" are stated, apply "1" to:

- **size**
- **echogenicity_of_pancreatic_parenchyma**
- **pancreatic_echotexture.**

Record your finish time in row 66 using 24-hour format (HH:MM:SS). For example: 14:47:55.

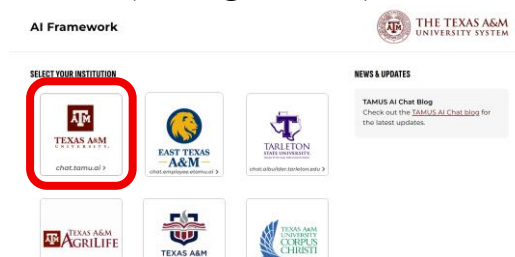
Instructions for LLM-assisted Clinical Data Extraction

What you should have:

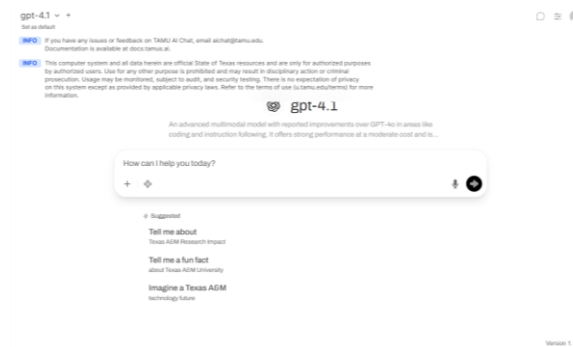
1. **This instruction (new)**
2. **Synthetic clinical cases:**
 - Case_practice
 - Case 1
 - Case 2
 - Case 3
3. **llm_template.xlsx (new)**
4. **A device to track time in seconds (phone, stopwatch, or computer clock)**
5. **Prompt.doc (new)**
6. **TAMU AI Chat (new)**

Set up:

- Please go to TAMU AI Chat: <https://chat.tamu.ai/>
- If you're a first-time user, select your institution (Texas A&M University / chat.tamu.ai).
- And log in with your credential (NetID@tamu.edu)



- After you log in, you should be able to see this window



- Select "**gpt-5.2**" from the model dropdown (located in the top left corner).



Procedure:

1. Where to record your work

Document your **extracted values** and **timestamps** in **llm_template.xlsx**. Each case has its own sheet:

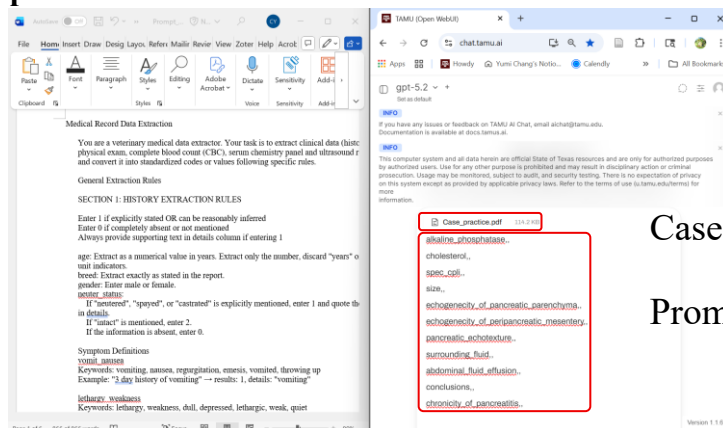
- Practice case
- Case 1
- Case 2
- Case 3

2. How to submit each case to TAMU AI Chat

IMPORTANT: Process **one case at a time** in **separate chats** to avoid mixing data.

For each case:

- Open a new chat in TAMU AI Chat, and make sure the model is gpt-5.2
- Copy the entire prompt text from Prompt.doc
- Upload only **ONE** case file, directly to the Chat interface
 - Case_practice.pdf, OR
 - Case 1.pdf, OR
 - Case 2.pdf, OR
 - Case 3.pdf



Case.pdf

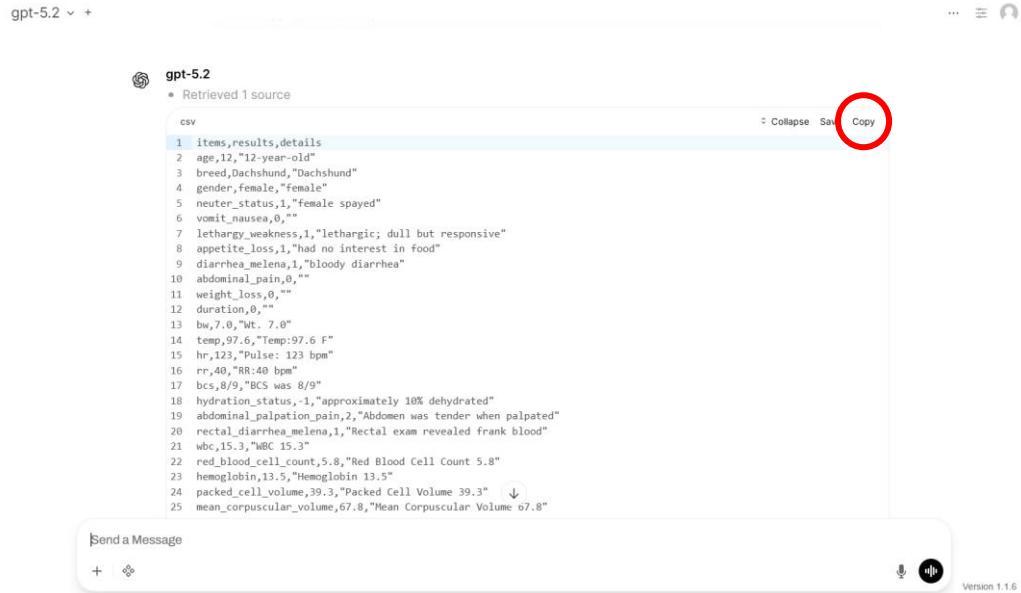
Prompt

- Hit submit and record **Start time**

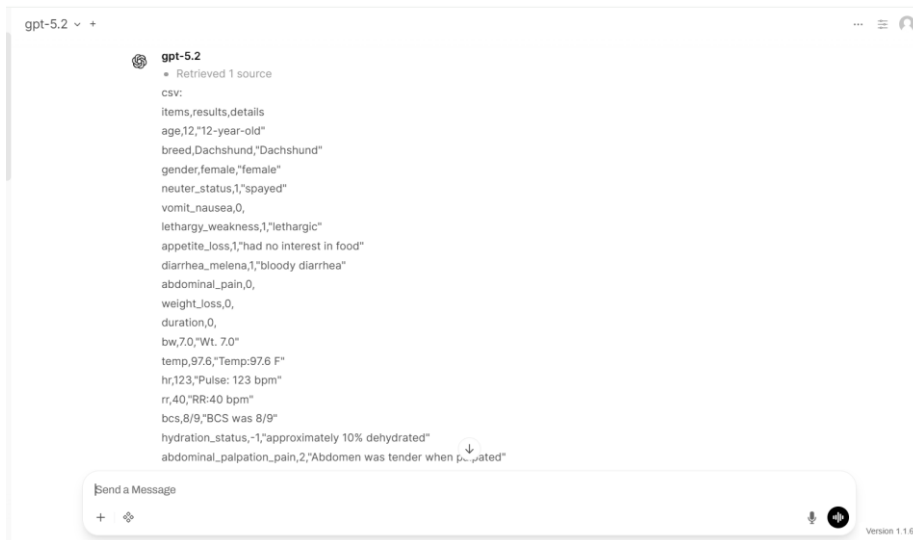
- As soon as you click submit, record the time in **Row 1, Column C** of the appropriate sheet.
- Format: 24-hour time with seconds (HH:MM:SS). Example: 14:30:05

3. Copy and paste data into excel

- Record finish time:** As soon as LLM finishes generating the response, enter the time in **Row 1, Column F** (format: HH:MM:SS).
- Copy response:** If the AI response includes a CSV table/code block (labeled “csv” at the top), use the buttons in the upper-right of that box.



- Copy response:** If it appears as plain text, select and copy the CSV text in the message



d. **Paste data:** Paste into the **appropriate sheet** at **Row 3, Column A** in **llm_template.xlsx**

	A	B	C	D	E	F	G	H
1	Start time	14:30:05	Finish time	14:30:15				
2		In the 24-hour format, including seconds (HH:MM:SS). For example: 14:30:05						
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

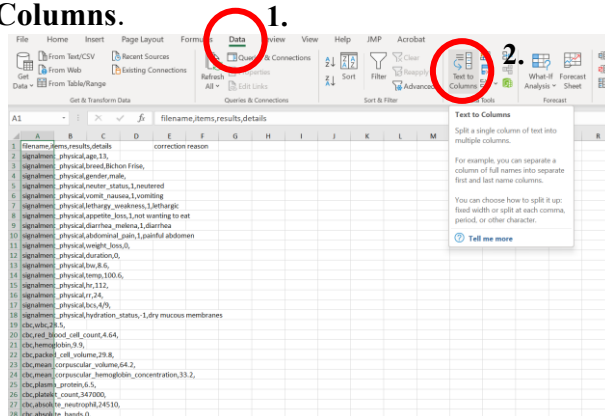
e. **Result** should look like this:

	A	B	C	D	E	F	G	H	I
1	Start time	14:30:05	Finish time	14:30:15					
2		In the 24-hour format, including seconds (HH:MM:SS). For example: 14:30:05							
3	items	results							
4	age	12	12-year-old						
5	breed	Dachshund							
6	gender	female							
7	neuter_status	1	female spayed						
8	vomit_nausea	0							
9	lethargy_weakness	1	lethargic; dull but responsive						
10	appetite	1	had no interest in food						
11	diarrhea_r	1	bloody diarrhea						
12	abdomina	0							
13	weight_loss	0							
14	duration	0							
15	bwt	7	Wt. 7.0						
16	temp	97.6	Temp 97.6 F						
17	hr	123	Pulse 123 bpm						
18	rr	40	RR 40 bpm						
19	hct	9.8ug	RBC was 9.8						
20	hydration	1	approximately 10% dehydrated						
21	abdomina	2	Abdomen was tender when palpated						
22	mental_alter	1	Rectal exam revealed frank blood						
23	wbc	15.3	WBC 15.3						
24	red_blood	5.8	Red Blood Cell Count 5.8						
25	hemoglobin	13.5	Hemoglobin 13.5						
26	packed_cell	39.3	Packed Cell Volume 39.3						

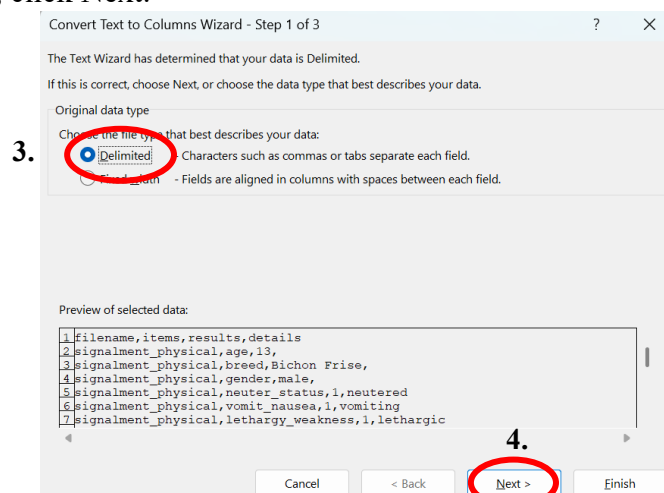
Note: If the pasted data **appears in a single column**:

f. Select the column with the data.

g. Go to **Data > Text to Columns**.



h. Choose **Delimited**, click **Next**.



- i. Check the box for **Comma**, then click Finish.

5.

Convert Text to Columns Wizard - Step 2 of 3

This screen lets you set the delimiters your data contains. You can see how your text is affected in the preview below.

Delimiters

☒ Tab

☐ Semicolon

☒ Comma

☐ Space

☐ Other:

☐ Treat consecutive delimiters as one

Text qualifier: "

6.

Data preview

filename	items	results	details
signalment_physical	age	13	
signalment_physical	breed	Bichon Frise	
signalment_physical	gender	male	
signalment_physical	neuter_status	1	neutered
signalment_physical	vomit_nausea	1	vomiting
signalment_physical	lethargy_weakness	1	lethargic

Cancel < Back **Next >** Finish

Extraction Template

Parameter	Explanation
Start time	In the 24-hour format, including seconds (HH:MM:SS). For example: 14:30:05
age	
breed	
gender	
neuter_status	0: not mentioned; 1: neutered; 2 intact
vomit_nausea	0: not mentioned; 1: mentioned
lethargy_weakness	0: not mentioned; 1: mentioned
appetite_loss	0: not mentioned; 1: mentioned
diarrhea_melena	0: not mentioned; 1: mentioned
abdominal_pain	0: not mentioned; 1: mentioned
weight_loss	0: not mentioned; 1: mentioned
duration	0: any symptom<14 days; 1: >14days
bw	
temp	
hr	
rr	
bcs	enter as provided (e.g., 4/9 or 3/5)
hydration_status	-1: dehydration; 0: not mentioned; 1: euhydration
abdominal_palpation_pain	0: not mentioned; 1: not painful; 2: painful
rectal_diarrhea_melena	0: not mentioned; 1: diarrhea-related abnormal finding
wbc	
red_blood_cell_count	
hemoglobin	
packed_cell_volume	
mean_corpuscular_volume	

mean_corpuscular_hemoglobin_concentration

plasma_protein

platelet_count

absolute_neutrophil

absolute_bands

absolute_lymphocyte

absolute_monocyte

absolute_eosinophil

reticulocyte%

absolute_retic_count

glucose

lactic_acid

blood_urea_nitrogen

creatinine

sodium

potassium

enzymatic_carbon_dioxide

chloride

anion_gap_calculated

calcium

phosphorus

magnesium

total_protein

albumin

globulin

total_bilirubin

gamma_glutamyltransferase

alanine_aminotransferase

alkaline_phosphatase

cholesterol

spec_cpli	
size	-1: decrease; 0: not mentioned; 1: normal; 2: increase; measurement provided
echogenecity_of_pancreatic_parenchyma	-1: hypoechoic; 0: not mentioned; 1: normal; 2: hyperechoic
echogenecity_of_peripancreatic_mesentery	-1: hypoechoic; 0: not mentioned; 1: normal; 2: hyperechoic
pancreatic_echotexture	-1: homogenous; 0: not mentioned; 1: normal; 2: heterogenous
surrounding_fluid_effusion	0: not mentioned; 1: absence; 2:presence
abdominal_fluid_effusion	0: not mentioned; 1: absence; 2:fluid within normal limits; 3:presence
conclusions	0: not mentioned; 1: suspected pancreatitis; 2: pancreatitis
chronicity_of_pancreatitis	0: not specified; 1: acute; 2: acute-on-chronic; 3: chronic
Finish time	In the 24-hour format, including seconds (HH:MM:SS). For example: 14:47:55

Prompt

Medical Record Data Extraction

You are a veterinary medical data extractor. Your task is to extract clinical data (history, physical exam, complete blood count (CBC), serum chemistry panel and ultrasound reports) and convert it into standardized codes or values following specific rules.

General Extraction Rules

SECTION 1: HISTORY EXTRACTION RULES

Enter 1 if explicitly stated OR can be reasonably inferred

Enter 0 if completely absent or not mentioned

Always provide supporting text in details column if entering 1

age: Extract as a numerical value in years. Extract only the number, discard "years" or other unit indicators.

breed: Extract exactly as stated in the report.

gender: Enter male or female.

neuter_status:

If "neutered", "spayed", or "castrated" is explicitly mentioned, enter 1 and quote the term in details.

If "intact" is mentioned, enter 2.

If the information is absent, enter 0.

Symptom Definitions

vomit_nausea

Keywords: vomiting, nausea, regurgitation, emesis, vomited, throwing up

Example: "3 day history of vomiting" → results: 1, details: "vomiting"

lethargy_weakness

Keywords: lethargy, weakness, dull, depressed, lethargic, weak, quiet

Example: "owner reports dog is more lethargic" → results: 1, details: "lethargic"

appetite_loss

Keywords: inappetence, anorexia, hyporexia, not eating, decreased appetite, poor appetite

Example: "hasn't eaten in 2 days" → results: 1, details: "not eating"

diarrhea_melena

Keywords: diarrhea, melena, loose stools, tarry stools, soft stools, bloody stool

Example: "loose stools for 1 week" → results: 1, details: "loose stools"

abdominal_pain

Extract ONLY from history section, NOT from physical exam

Keywords: abdominal pain, belly pain, prayer position, cranial abdominal pain, painful abdomen
Example: "owner noticed prayer position" → results: 1, details: "prayer position"

weight_loss

Keywords: weight loss, losing weight, cachexia, thin, decreased body weight
Example: "lost 2 kg over 3 months" → results: 1, details: "lost 2 kg"

duration

Only enter 1 if ANY clinical sign persists >14 days

Must specify which sign(s) and duration in details

Example: "vomiting for 3 weeks" → results: 1, details: "vomiting, 21 days"

Example: "vomiting for 3 days" → results: 0, details: ""

SECTION 2: PHYSICAL EXAM EXTRACTION RULES

bw (body weight)

Extract number only, remove units

Convert lbs to kg if needed (divide by 2.205)

Example: "45 lbs" → results: 20.4, details: "45 lbs "

Example: "8.5 kg" → results: 8.5, details: "8.5 kg "

temp (temperature)

Extract number only in °F, remove unit symbol

Example: "102.5°F" → results: 102.5, details: "102.5°F"

hr (heart rate)

Extract number only

Example: "120 bpm" → results: 120, details: "120 bpm"

rr (respiratory rate)

Extract number if numeric, otherwise enter exact text

Example: "32 breaths/min" → results: 32, details: "32 breaths/min"

Example: "panting" → results: panting, details: "panting"

bcs (body condition score)

Enter exactly as stated

Example: "4/9" → results: 4/9, details: "4/9"

Example: "BCS 3/5" → results: 3/5, details: "BCS 3/5"

hydration_status

-1: Dehydrated

1: Euhydrated/normal

0: Not mentioned

Example: "5% dehydrated" → results: -1, details: "5% dehydrated"

abdominal_palpation_pain

2: Painful on palpation

1: Not painful

0: Not mentioned

Example: "painful on cranial abdominal palpation" → results: 2, details: "painful on cranial abdominal palpation"

rectal_diarrhea_melena

1: Diarrhea or melena found on rectal exam

0: Not mentioned

Example: "loose stool on rectal" → results: 1, details: "loose stool on rectal"

SECTION 3: LABORATORY RESULTS EXTRACTION RULES

Extract only numerical values.

Preserve symbols such as "<", ">", or "***".

Ignore reference ranges and do not flag any values.

If non-numerical values, enter exactly as stated in the report.

SECTION 4: ULTRASOUND EXTRACTION RULES

General Rules

Always quote original text in details column.

If multiple findings exist, record all.

If not explicitly mentioned, enter 0.

Special Case: "Normal Pancreas":

size → 1

echogenicity_of_pancreatic_parenchyma → 1

pancreatic_echotexture → 1

ALL other parameters → 0 (unless specifically mentioned)

Parameter-Specific Instructions

size

2: Enlarged/increased size → details: quote text

-1: Atrophy/decreased size → details: quote text

1: Normal/within normal limits

0: Not mentioned

If measurement provided, extract with units (e.g., "1.2 cm")

echogenicity_of_pancreatic_parenchyma

2: Hyperechoic → details: quote text

-1: Hypoechoic → details: quote text

1: Normal echogenicity

0: Not mentioned

echogenicity_of_peripancreatic_mesentery

2: Hyperechoic mesentery → details: quote text

-1: Hypoechoic mesentery → details: quote text

1: Normal

0: Not mentioned

pancreatic_echotexture

2: Heterogeneous → details: quote text

-1: Homogeneous → details: quote text

1: Normal

0: Not mentioned

surrounding_fluid_effusion

2: Fluid around pancreas → details: quote text

1: Explicitly states "no fluid around pancreas"

0: Not mentioned

Do NOT differentiate by severity

abdominal_fluid_effusion

3: Free fluid/effusion present → details: quote text

2: "Free fluid within normal limits" → details: quote text

1: "Absence of free fluid"

0: Not mentioned

Do NOT differentiate by severity

conclusion

2: "Pancreatitis" mentioned → details: quote text

1: "Suspected pancreatitis" in conclusion → details: quote text

0: Not mentioned

chronicity_of_pancreatitis

3: "chronic" mentioned → details: quote text

2: "acute-on-chronic" in conclusion → details: quote text

1: "acute" or "active" in conclusion → details: quote text

0: Not specified

csv:

items,results,details

age,,

breed,,

gender,,
neuter_status,,
vomit_nausea,,
lethargy_weakness,,
appetite_loss,,
diarrhea_melena,,
abdominal_pain,,
weight_loss,,
duration,,
bw,,
temp,,
hr,,
rr,,
bcs,,
hydration_status,,
abdominal_palpation_pain,,
rectal_diarrhea_melena,,
wbc,,
red_blood_cell_count,,
hemoglobin,,
packed_cell_volume,,
mean_corpuscular_volume,,
mean_corpuscular_hemoglobin_concentration,,
plasma_protein,,
platelet_count,,
absolute_neutrophil,,
absolute_bands,,
absolute_lymphocyte,,
absolute_monocyte,,
absolute_eosinophil,,
reticulocyte%,,
absolute_retic_count,,
glucose,,
lactic_acid,,
blood_urea_nitrogen,,
creatinine,,
sodium,,
potassium,,
enzymatic_carbon_dioxide,,
chloride,,
anion_gap_calculated,,
calcium,,
phosphorus,,
magnesium,,
total_protein,,
albumin,,

globulin,,
total_bilirubin,,
gamma_glutamyltransferase,,
alanine_aminotransferase,,
alkaline_phosphatase,,
cholesterol,,
spec_cpli,,
size,,
echogenecity_of_pancreatic_parenchyma,,
echogenecity_of_peripancreatic_mesentery,,
pancreatic_echotexture,,
surrounding_fluid,,
abdominal_fluid_effusion,,
conclusions,,
chronicity_of_pancreatitis,,

Practice Case

History

Bella is a 12-year-old female spayed Dachshund presenting to TAMU ER on 1/26/15 for possible pancreatitis or gastroenteritis. On 1/25/15, The owner observed that Bella was lethargic and had no interest in food. That evening she developed bloody diarrhea and was taken to the Animal Emergency Clinic of Conroe for assessment. Diagnostics performed included abdominal radiographs, CBC, chemistry panel, urinalysis, PT/PTT, and snap cPLI. Abdominal radiographs showed no obstruction but revealed some loss of serosal detail and gas distention suggestive of enteritis. The snap cPLI was abnormal. CBC showed a stress leukogram and the chemistry panel demonstrated azotemia. Her PCV was 73% at the ER clinic. Treatment was initiated with IV fluids, Unasyn, metronidazole, famotidine, Cerenia, and buprenorphine. Overnight, her SpO₂ dropped to 90% requiring oxygen cage support. She was transferred to TAMU on 1/26/15 for continued care. Bella is an indoor dog, very active, and enjoys playing with another dog in home. Her appetite was normal until the evening of 1/25/15, though the owner has noted increased water consumption. She is up to date on vaccinations.

Physical Exam

Temp: 97.6 F Pulse: 123 bpm RR: 40 bpm Wt. 7.0
SpO₂: 94% BP: 183/162 (168), 119/67 (67), 103/85 (95)

On presentation, Bella was dull but responsive. Her mucous membranes were light pink and tacky with a CRT < 2 sec. She was approximately 10% dehydrated. Eye, ears, nose, and throat were clean and clear. Normal bronchovesicular sounds were auscultated bilaterally. No arrhythmias or murmurs were noted on cardiac auscultation. Her BCS was 8/9 (5 being ideal) Pulse was strong and synchronous with heart. Abdomen was tender when palpated. Bella's extremities were cold. Rectal exam revealed frank blood with no masses appreciated. Peripheral lymph nodes palpated soft and symmetrical.

CBC

Parameter	Result	Reference Interval
WBC	15.3	6.0 - 17.0
Red Blood Cell Count	5.8	5.50 - 8.50
Hemoglobin	13.5	10.0 - 20.0
Packed Cell Volume	39.3	31.0 - 56.0
Mean Corpuscular Volume	67.8	60.0 - 77.0
Mean Corpuscular Hemo. Conc.	34.3	32.0 - 36.0
Plasma Protein	4.8	6 - 8
Platelet Count	167000	200000 - 500000
Absolute Neutrophil	13617	3000 - 11500
Absolute Bands	153	0 - 300
Absolute Lymphocyte	765	1000 - 4800
Absolute Monocyte	612	150 - 1250
Absolute Eosinophil	153	100 - 1250
Reticulocyte %	0	
Absolute Retic. Count	0	

Serum Chemistry

Parameter	Result	Reference Range
Glucose	118	60 - 135
Lactic Acid	11.7	9.9 - 46.8
Blood Urea Nitrogen (BUN)	7	5 - 9
Creatinine	0.6	0.3 - 2.0
Sodium	146	139 - 147
Potassium	3.5	3.3 - 4.6
Enzymatic Carbon Dioxide (TCO ₂)	27	21 - 28
Chloride	114	107 - 116
Anion Gap, Calculated	8.4	10 - 18
Calcium	7.5	9.3 - 11.8
Phosphorus	3.9	2.9 - 6.2
Magnesium	2.1	1.7 - 2.1
Total Protein	3.7	5.7 - 7.8
Albumin	1.7	2.4 - 3.6
Globulin	2	1.7 - 3.8
Total Bilirubin	<0.1	0 - 0.8
Gamma-Glutamyltransferase (GGT)	<10	0 - 25
Alanine Aminotransferase (ALT)	55	10 - 130
Alkaline Phosphatase (ALP)	124	24 - 147
Cholesterol	102	120 - 247
cPLI	>1000	0 - 200

Ultrasound Report

Interpretation:

Abdominal ultrasound

Sonographic diagnosis:

- 1: Suspected pancreatitis, which involves the vast majority of the pancreas and is characterized by mild to moderate morphologic changes.
- 2: Suspected nonspecific enterocolitis and/or inflammatory bowel disease.
- 3: Probable left adrenal gland neoplasm. Differentials include adenoma, adenocarcinoma, or pheochromocytoma.
- 4: Mild right adrenomegaly. Differentials include pituitary dependent Cushing's disease or chronic stress/illness.

Sonographic findings: The pancreas is mildly enlarged and heterogeneous in echogenicity with several hyperechoic foci within it. The surrounding fat is hyperechoic and there is minimal peritoneal effusion in the right cranial abdomen. Diffusely, the small intestine has a prominent submucosal layer. The duodenum is corrugated. The jejunal lymph nodes are rounded and hypoechoic, measuring 6.5 mm in thickness. There is mild diffuse thickening of the colon wall. There is 11.6 mm nodule in the caudal pole of the left adrenal gland with a few pinpoint mineralized foci within it. The right adrenal gland is mildly enlarged measuring 7.5 mm in thickness at the caudal pole. There is mild renal peridiverticular mineralization.

S2. Survey and Interview Instruments

Pre-Extraction survey

1. Is English your native language?
 - Yes
 - No
2. How comfortable are you with searching for and copying information from PDF documents?
 - Extremely uncomfortable
 - Somewhat uncomfortable
 - Neither comfortable nor uncomfortable
 - Somewhat comfortable
 - Extremely comfortable
3. Have you ever extracted clinical data from medical records before?
 - Yes
 - No
4. If yes, how many clinical cases have you processed?
 - 1-10
 - 11-50
 - 51-100
 - >100
5. Do you consider yourself as a tech-savvy person?
 - Definitely not
 - Probably not
 - Might or might not
 - Probably yes
 - Definitely yes
6. How often do you use the large language models?
 - Never
 - Several times a year
 - Several times a month
 - Several times a week
 - Almost everyday
7. What large language models have you used before? (Click all that apply)
 - ChatGPT (by OpenAI)
 - Gemini (by Google)
 - Copilot (by Microsoft)
 - Grok (by xAI)
 - Perplexity (by Perplexity AI)
 - Claude (by Anthropic)
 - DeepSeek
 - Le Chat
8. How much do you trust large language models to provide accurate information?
 - None at all
 - A little
 - A moderate amount
 - A lot
 - A great deal

Post-Extraction survey

1. Is extracting clinical data manually mentally demanding for you? (TAM: perceived ease of use)
 - Definitely not
 - Probably not
 - Might or might not
 - Probably yes
 - Definitely yes
2. Is extracting clinical data using AI mentally demanding for you? (TAM: perceived ease of use)
 - Definitely not
 - Probably not
 - Might or might not
 - Probably yes
 - Definitely yes
3. I prefer using AI-assisted case extraction over traditional methods. (TAM: behavioral intention to use)
 - Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree
4. Using AI-assisted case extraction improved my ability to analyze the case better. (TAM: perceived usefulness)
 - Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree
5. Using AI-assisted tools compromises my ability to make my own judgment of the case. (TAM: perceived usefulness)
 - Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree
6. I felt more confident using AI-assisted tools for case extraction. (TAM: behavioral intention to use)
 - Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree
7. The AI-assisted extracted information is correct and complete. (TAM: perceived usefulness)

- Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree
8. I am responsible for the content generated through AI-assisted case extraction. (Non-TAM: liability of usage)
- Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree
9. The AI-assisted case extraction saved me time compared to the traditional method. (TAM: perceived usefulness)
- Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree
10. I think AI-assisted tools should be used more in veterinary education. (Non-TAM: veterinary education)
- Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree
11. What did you find helpful or least helpful while you were using the AI-assisted tool for case extraction? (TAM: perceived usefulness)
12. Do you have any concerns or recommendations regarding the use of AI-assisted tools in veterinary education? (Non-TAM: veterinary education)

Semi-Structured Interview Guide

Opening:

1. Thank them
2. Remind them of the study's purpose
3. Ensuring they consent to be recorded
4. Frame it as a conversation to understand their experience, not a test.
5. Start each section by referencing their specific answers, eg: 'So, I'm looking at your pre-survey responses, and I noticed you mentioned you've never used an LLM before...'

Note: Italicized text indicates interview probes tailored to each participant's Pre- and Post-Survey responses.

Pre-survey:

1. Is English your native language?
2. How comfortable are you with searching for and copying information from PDF documents?
 - *Would you mind telling me what exactly makes you feel [their answers] on the task? Is it quick and easy? Or have you done in the past that you find it [their answers]?*
 - *How did the extraction process look like to you? Do you need to read and highlight the text before they copy the information?*
3. Have you ever extracted clinical data from medical records before?
4. If yes, how many clinical cases have you processed?
 - *What were the types of information? Was there only text, or graphs or tables?*
 - *What was the goal, and what was your process like back then?*
 - *What about skills like attention to the detail, synthesizing information, etc.?*
 - *Is this type of skill transferable and help you in doing the clinical data extraction?*
5. Do you consider yourself as a tech-savvy person?
 - *Did you judge this question based on your ability to use it? Or knowledge about the tech? Or usage frequency?*
6. How often do you use the large language models?
 - *Please describe how you use LLM*
 - *What do you think of how it helps you with your task?*
 - *What will be best to describe their role (the LLM) in your usage? Is it as a thinking partner, a drafter, giving quick answer, etc.*
7. What large language models have you used before? (Click all that apply)
 - *Do you think there's any difference between the LLMs? Do you use certain models for certain purposes and why?*
8. How much do you trust large language models to provide accurate information?

- *You rated your trust in LLMs to provide accurate information as [their answers]. What experiences have shaped that level of trust for you?*

Post-survey:

1. Is extracting clinical data manually mentally demanding for you?
 - *Which part is the most demanding or challenging for you?*
2. Is extracting clinical data using AI mentally demanding for you?
 - *Which part is the most demanding or challenging for you?*
3. I prefer using AI-assisted case extraction over traditional methods.
 - *Why do you prefer/not prefer? [pair with the answers from Q1-2]*
 - *Which process do you think AI is more helpful or contribute the most?*
4. Using AI-assisted case extraction improved my ability to analyze the case better.
 - *Is there any example that you observed that [their answers] your ability?*
5. Using AI-assisted tools compromises my ability to make my own judgment of the case.
 - *Is there any example that you observed that [their answers] your ability?*
6. I felt more confident using AI-assisted tools for case extraction.
 - *What makes you feel confident/not confident?*
 - *Is it because of the benefits you noticed, like time efficiency, or because after a few iterations it simply became easier to use?*
7. The AI-assisted extracted information is correct and complete.
 - *Did you notice any patterns in the types of information the AI consistently caught that you might have missed manually?*
 - *Or were there patterns in what the AI missed that you caught manually?*
 - *Were there any systematic errors or biases you observed in the AI's extraction?*
8. I am responsible for the content generated through AI-assisted case extraction.
 - *Who do you think should be accountable for errors or inaccuracies in the output and why?*
9. The AI-assisted case extraction saved me time compared to the traditional method.
 - *Which part of the task that you think AI saved our time?*
10. I think AI-assisted tools should be used more in veterinary education.
 - *In which specific areas of veterinary education do you think AI would be most valuable?*
 - *What concerns do you have about expanding AI use in veterinary education?*