

RUMINANT FIELD SERVICE

PROTOCOL

THE ROUTINE PHYSICAL EXAMINATION OF CATTLE*

THE POWER OF CLINICAL OBSERVATION

"Clinical examination is far more powerful than laboratory evaluation in establishing diagnoses, prognoses, and therapeutic plans for most patients in most places". "Regardless of the reason for seeking diagnostic data, the overriding criterion to use when deciding which data to seek ought to be the usefulness of a given piece 'of diagnostic data to the clinician who seeks it and the patient who generates it." Clinical Epidemiology, Sackett et al. 1985.

(1) HISTORY

DO NOT proceed further until you have obtained:

- Patient data
- Presenting complaint and duration
- Temporal events • (e.g. calving, peak lactation, feed change etc)
- Ration details
- Appetite, amount, preferences and temporal events - Character of faeces
- Milk production
- Previous treatment

(2) GENERAL INSPECTION

STAND BACK and assess:

- Environment macro and micro - Location
- General external appearance including shape and symmetry of ' 'abdomen and thorax
- Posture
- Behaviour and attitude – Respiratory movements. Skin and hair coat.
- Amount, "colour and consistency of faeces
- Amount and nature of feed present

(3) URINE SAMPLE:

Collect a mid-stream urine sample from lactating (or lactating age) dairy cattle. Assess posture during and after urinating. Perform test for ketones, save-remainder for further test (s) if indicated.

(4) RECTAL TEMPERATURE

(Normal 38.0 - 38.5° C).

Assess: tail and anal tone

(5) VULVAR MUCOUS MEMBRANES: Inspection.

Appearance colour and lesions of vulval mucous membranes.

Capillary refill time.

Evidence of discharge from reproductive tract

Note colour, nature, odour of secretions or discharge on escutcheon or tail

LEFT SIDE:

(6) SUPRAMAMMARY LYMPH NODES: Inspection, Palpation.

Note size, consistency, tenderness or palpation.

(7) LEFT PREFEMORAL LYMPH NODE: Inspection, Palpation.

Note size, consistency, tenderness or palpation.

(8) LEFT HIND LEG: Inspection, Palpation.

Assess for evidence of heat, pain, swelling, redness of joints or foot.

(9) RUMEN: Inspection, Palpation, Auscultation.

Inspection of left paralumbar fossa.

Palpation of rumen contents, consistency, gas

Auscultate over centre of left paralumbar fossa.

Rumen contractions:

Note: Frequency and amplitude of contractions (normal: 1-2 /minute or 7/5 minutes)

Auscultate and percuss entire flank posterior to 9th intercostal spaces.

(10) HEART: Palpation, Auscultation

Auscultate heart

Assess: -

Rate (normal: 60-80 beats/minute).

Rhythm.

Intensity

Adventitious sounds

(11) BRISKET/AXILLA/VENTRAL THORAX: Inspection, Palpation. Note any swellings or edema.

- (12) RESPIRATORY SYSTEM (LEFT):
Visualize normal lung field and auscultate at three levels paying particular attention to the hilar region of the lung and the anterior ventral thorax.
- (13) LEFT FORELEG: Inspection, Palpation.
Assess for evidence of heat, pain, swelling, redness, of legs joints or foot.
- (14) LEFT PRESCAPULAR LYMPH NODE: Inspection, Palpation.
Note size, consistency, evidence of pain on palpation.
- (15) SKIN: Left neck
Test for state of hydration.
Any evidence of ectoparasites.
- (16) LEFT JUGULAR VEIN: Inspection, Palpation.
Check: Degree of fullness of vein.
Movement within jugular vein.
- (17) TRACHEA:
Auscultate ventral aspect of trachea at two sites
Compress trachea to see if can elicit cough.
- (18) LARYNX: Auscultation, Palpation.
Auscultate larynx.
Compress to see if can elicit cough.

HEAD:

- (19) Note CARRIAGE of

Head

Ears

SYMMETRY of HEAD.

FACIAL EXPRESSION.

EYE MOVEMENTS.

- (20) NOSTRILS: Inspection

Note if any evidence of-nasal discharge.

- Unilateral/bilateral.

- Nature of discharge (serous, mucoïd, mucopurulent, purulent)

(21) EYES:

Position of globe in orbit:
Eye movements
Menace (eye preservation) reflex.
Ocular discharge
- Unilateral or bilateral.
- Nature of discharge.
Conjunctiva and sclera."
- Colour, lesions.
Assess hydration by pinching upper eyelid.

(22) SUBMANDIBULAR LYMPH NODES:

Palpation for size, consistency, tenderness on palpation.

(23) SALIVARY GLANDS (submandibular, parotid)

Any evidence of swelling/pain in salivary gland region.

(24) ORAL CAVITY: Note evidence of excessive salivation

RIGHT NECK:

(25) RIGHT JUGULAR VEIN: Inspection, Palpation.

As for left jugular vein.

(26) RIGHT PRESCAPULAR LYMPH NODE: Inspection, Palpation.

Note size, consistency, tenderness on palpation.

(27) RIGHT FORELEG: Inspection, Palpation.

Assess for evidence of heat, pain, swelling, redness, of legs joints or foot.

RIGHT THORAX:

(28) HEART: Auscultation as per item 10

(29) RESPIRATORY SYSTEM:

Repeat as per left side.

ABDOMEN (Right Side).

(30) Note shape, size of right abdomen.

Auscultate and percuss entire flank posterior to 9th intercostal spaces.

(31) RIGHT PREFEMORAL LYMPH NODE: Inspection, Palpation.

Note size, consistency and evidence of pain on palpation.

- (32) RIGHT HINDLEG: Inspection, Palpation.
Assess for evidence of heat, pain, swelling, redness of leg joints or foot.
- (33) UMBILICAL REGION/VENTRAL ABDOMEN: Inspection, Palpation. Palpate for evidence of herniation, edema, heat, swelling.
Assess mammary veins and note degree of fullness.
Assess penis and prepuce
- (34) MAMMARY GLANDS: Inspection, Palpation.

Assess symmetry of mammary glands (quarters) when viewed from behind and the side.
Palpate the consistency of each gland.
Assess for heat, swelling, pain, redness, present.
Observe and palpate teats and teat orifices.
Observe skin between mammary gland and hindleg.
If milking examine milk from each quarter in a strip cup and/or perform CMT test.
Perform milk ketone test if unable to obtain urine sample.
- (34a.) SCROTUM: Inspection and palpate if indicated
- (35) RECTAL PALPATION:
Gross assessment of faeces
Palpate intestines, reproductive tract, peritoneum, rumen,
Left kidney , pelvis, iliofemoral lymph nodes, urinary bladder
with emphasis dictated by earlier findings.
- The routine physical examination may indicate that one or more body systems are abnormal which is the trigger or conduct a more detailed examination of the body system(s) affected.

*[Adapted from J.Baird, OVC and Rosenberger (1979)]