Presentation: “ADR” - Ain’t Doin’ Right - depression, partial anorexia in early lactation
Ketosis occurs when energy intake is inadequate for output.

- ↑ glucose demand (lactation +/- pregnancy) AND ↑ fat mobilization
- Excessively thin or excessively fat cows at highest risk

Forms of Ketosis:
- Primary ketosis – no other diseases present
  - Subclinical - Still eating, producing, some herds, 30-50% of cows
  - Clinical Off feed, especially concentrates ↓ milk prod.
    - Fatter cows -“sicker quicker” severe hepatic lipidosis
- Secondary ketosis – often transient
  - Periparturient disease - ↓ appetite = Neg energy balance
    - DAs, hypoCa, RPs, metritis, mastitis, lameness
- Pregnancy toxemia
- “Nervous” ketosis: Circles, staggers, bellows, licks, chews, pica, trembles, aggressive

Test(s) of choice: History + clinical signs + risk factors, +/- acetone smell on breath

- Urine - Ketostix® - very sensitive  acetoacetate - purple color, ketonuria precedes ketonemia
- Milk - Acetest®  Good specificity (trust a pos. result)  Acetone/acetoacetate
- BHB testing - Most sensitive test (trust a neg. result)  Positive = clinical disease
- ↑ NEFAs – best for herd testing

Rx of Choice: Restore normoglycemia + ↓ serum ketone bodies = provide glucose/precursors

- IV Glucose – 50% dextrose
- If NOT pregnant, give glucocorticoids – dexamethasone or isoflupredone acetate
- Propylene glycol drenches, Force feeding, ↓ milk production
- Continue supplementation until after cow is normal several days

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Zuku Review FlashNotes™

Classic Question(s):

A dairy farmer has several cows that calved normally and but have lost more weight than usual and milk production is starting to fall off.

These cows were in good condition prior to calving, but seemed to gradually lose weight and then refused to eat concentrate.
He thinks he hears a ping on the left side of one of the cows. Also, one of the first cows affected is acting strangely, bellowing, chewing on the barn, and has charged at the owner.

What is the most likely diagnosis?
How would you confirm the diagnosis in an individual sick cow?
How would you test the herd?
What actions can help to prevent this problem in the herd going forward?