83 year old woman.

"Group-beating" possibilities?
I think that this is a challenging and interesting tracing.
We can quickly dispose of the abnormalities in the 12 lead EKG: RBBB; Lateral (?posterolateral) M.I.; and a nifty example of changing QT durations with varying R-R intervals.
Two things are evident in the rhythm strip: There are no P waves and there is repetitive “group beating”, suggesting prolonging AV conduction with “dropped beats”. Measurements of the recurring sequences of R-R intervals are provided. These permit the conclusion that there is a ectopic (junctional) focus firing every 0.52 sec (rate= +/- 115/ min) with Wenckebach block in transmission. ---whew!!! Do you agree?? All alternate analyses will be gratefully and warmly welcomed (Before being discarded)
Tracing 2

28 year old man.

Emergency Room - First Tracing - 6/19
This tracing helps prove an interesting point -- significant increase in QRS voltage is usually due to an anatomic left ventricular hypertrophy, but can occur due to increased “transmyocardial tension”. (known as the “Brody effect”). This is analogous to the voltage recorded from a relaxed to a contracting muscle.

This young man’s use of cocaine caused severe hypertension with striking increase in QRS voltage. The tracing below - two days later - shows regression of what was apparent “LVH”.

Second Tracing - 6/21
Tracing 3

You observations please:

“When searching for a needle in a haystack ...?”

96 Year old woman.

PR 107 (TACHP) + Tachycardia with unusual P axis, rate 125 - - -
QRSD 50 [Now Present]
QT 309 (LADD) + Left axis deviation [Now Present] - - - - -
QTc 446 (STTL) + Lateral region ST-T abnormalities, [Now - - - - -
Present] - ABNORMAL ECG -
"When searching for a needle in a haystack ...
select a small haystack."

In lead V1, the T-wave is isoelectric and is not a source of potential confusion. The “humps” before and after the QRS are easily identified as “P Waves”. Thus, the rhythm is atrial flutter at 250/min with 2:1 A-V conduction.
July 2018
52 year old woman.

Tracing 4

Your Observations:

10/15

MUSICAL CLUE: “There’s a ..... across the meadow”

10/15 - 12 Hrs later - Better / Worse? Why? In yesteryear, what was the quinidine paradox?
If you were a fan of the late John Denver, you'll remember that one of his ballads started “There’s a storm across the meadow”. This generous clue was an alert that this woman’s problem was thyroid storm. Her rhythm is atrial flutter at 275/minute with predominant 2:1 AV conduction. The QRS axis is (+) 95° and the QRS complexes are surprisingly low, with a long QT interval.

Later in the day, her QRS voltage has increased but so has her heart rate! Note that the flutter stimuli have decreased to 185/minute and that the impulses are now conducted 1:1. In the heyday of quinidine use, the drug could have a dual effect. When used in patients with atrial flutter, it could decrease the flutter rate and simultaneously increase AV transmission. The result of therapy was often an increased number of conducted impulses -- not very desirable!
23 Year old woman

July 2018

What is the "Lange-Nielsen" syndrome??
What is the therapy??

PR 283 *Atrial pacer rate 90
QRS 64 Diffuse Nonspecific T abnormalities
QT 188
QTc 230

- ABNORMAL ECG -
I forgot that Dr. Jervelle is the senior member of the syndrome - the Jervelle-Lange-Nielsen syndrome - which is congenital deafness accompanying a long QT interval and, sadly, is associated with sudden arrhythmic death. This young woman has had several episodes of aborted sudden-death. Note the incorrect computer measurements of the QT and rate-corrected QT (QTc). The real numbers should be QT = 0.48 and QTc = 0.60 (normal = 0.40). The ventricular limb of the dual chamber pacer is inhibited by A-V conduction of the atrial paced impulse. Note Lead V2
39 Year Old Woman

Tracing 6

Gun shot to the left chest without cardiac damage - why?
If you heeded the clue, it should be obvious that right axis deviation of the P waves and QRS complexes, and the decreasing precordial QRS amplitude, should have given the answer - - Free advice: if you are about to get shot in the left chest, be sure to have dextrocardia!!!