

# According to Utah Valley Hospital's formulary, bupivacaine liposomal was used incorrectly 95% of the time from July 2018 to August 2019

## RESULTS BREAKDOWN

Correct applications of bupivacaine liposomal use were as follows:

- Open abdominal surgery procedures as part of a transversus abdominis plane (TAP) block (68.2%)
- Elective cosmetic surgeries (22.7%)
- Thoracic surgery procedures (4.5%)
- Traumatic rib injuries (4.5%)

When bupivacaine liposome was used incorrectly, it was used for:

- Shoulder surgery (69.3%)
- Brachial plexus block (18.6%)
- Humeral or radial surgery (5.4%)
- Hip or femoral surgery (3.2%)
- Abdominal surgery (2.4%)
- Hand or wrist surgery (1%)

## Bupivacaine liposomal: a medication use evaluation

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### INTRO

Bupivacaine liposomal (Exparel) is an expensive injectable analgesic used in surgery. Therefore its use has been restricted at Utah Valley Hospital. Formulary guidelines at Utah Valley Hospital do not include all approved indications for its use, which led to nonadherence. This medication use evaluation was conducted to address current formulary adherence for the use of bupivacaine liposomal at Utah Valley Hospital.

### METHODS

1. A drug utilization report from July 2018 to August 2019 was obtained to examine the uses of bupivacaine liposomal.
2. De-identified documentation from surgical and anesthesia encounters was retrospectively analyzed.
3. Encounters were analyzed against current formulary guidelines, which recommend its use for: elective cosmetic surgery, thoracic surgery, traumatic rib injury procedures, traumatic chest wall injury procedures, and open abdominal surgery as part of a transversus abdominis plane (TAP) block
4. Data from 393 surgeries was then categorized into correct or incorrect usage per formulary guidelines and indication.

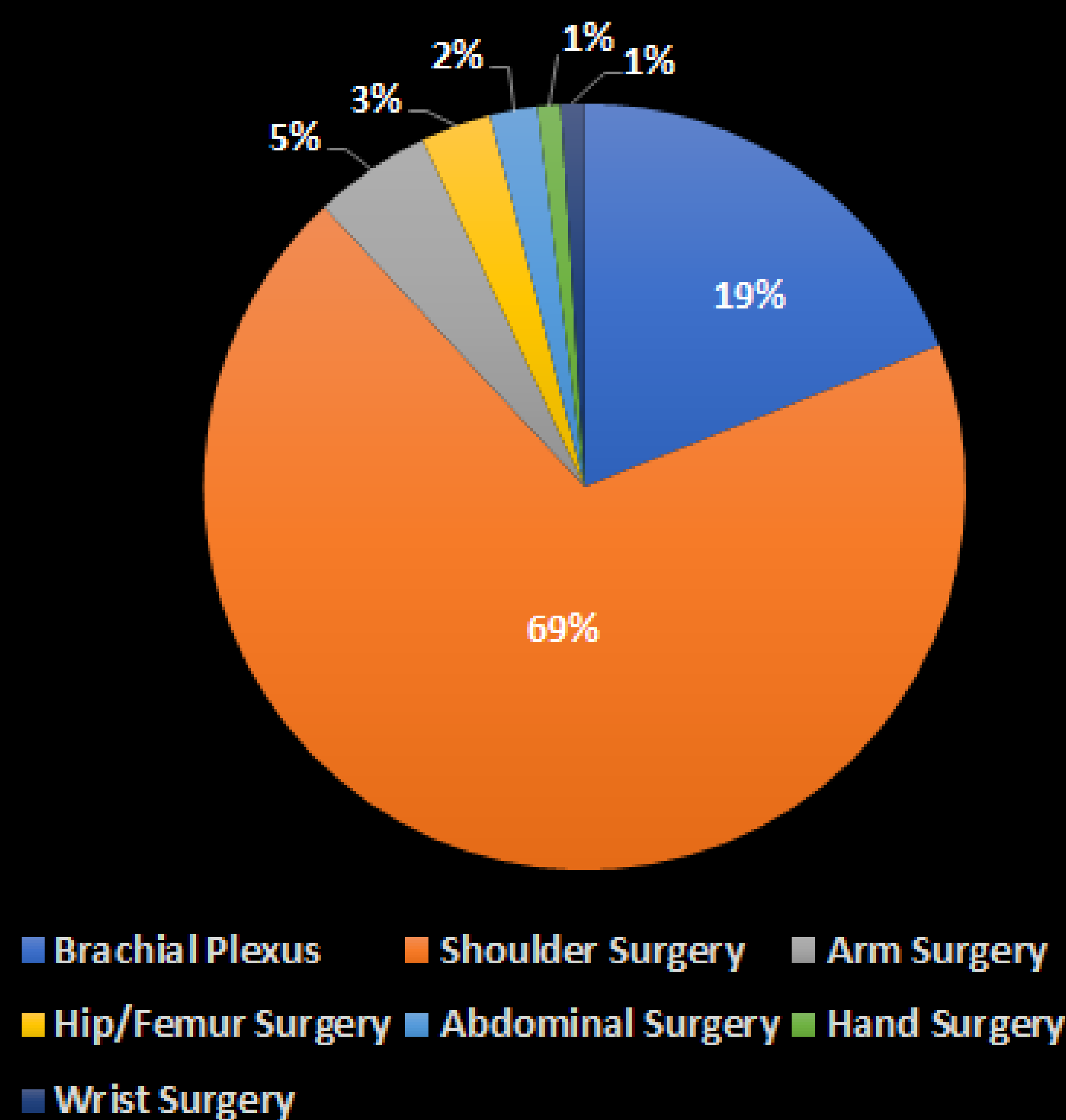
### RESULTS

Of the 393 surgeries analyzed, bupivacaine liposomal was used correctly according to formulary guidelines 22 times (5.6%). Bupivacaine liposomal was used outside of formulary guidelines 371 times (94.4%).

### CONCLUSION

Bupivacaine liposomal formulary guidelines are not being adhered to at Utah Valley Hospital. Compilation of research is to be evaluated for institution of amended formulary restrictions.

Bupivacaine Liposomal Used Incorrectly



Bupivacaine Liposomal Used Correctly

