

Comparison of Manual Restraint With and Without Sedation on Outcomes for Wild Birds Undergoing Decontamination

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Abstract: The decontamination process for plumage-contaminated wild birds, such as those affected by oil spills, is lengthy and involves manual restraint and manipulation of all body parts. Birds commonly react to this in ways that suggest they are extremely stressed (eg, struggling, vocalizing). We proposed to reduce stress during the wash process using sedation and hypothesized that the use of sedation would not negatively impact survival. Contaminated birds in need of washing were randomly selected to be either sedated (butorphanol 2 mg/kg IM + midazolam 1 mg/kg IM and flumazenil 0.1 mg/kg IM for reversal) or not sedated at 3 US rehabilitation centers over the course of 1 year. Response to sedation was rated on a scale of 0–4 with 0 as no effect to 4 as excessively sedate. Data such as cloacal temperatures at various time points, lengths of various portions of the wash process, preening behavior in the drying pen, and disposition were collected. No statistical differences were found between sedated and nonsedated birds for any of the data points collected, including survival. There was a significant association between birds with higher cloacal temperatures in the drying pen and with birds held longer in the drying pen with improved survival; however, these findings were unrelated to whether the birds were sedated. Our findings show that sedation with butorphanol 2 mg/kg IM and midazolam 1 mg/kg IM reversed with flumazenil 0.1 mg/kg IM can be used during the wash process for wild birds without adverse effects. Careful attention must be given to heat support for all birds while drying to prevent hypothermia.