

Knowledge & Attitudes of Pain Principles Amongst US Hemophilia Providers

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Statement of the Problem

- Pain is a co morbidity of most bleeding disorders, especially hemophilia.
- The National Pain Study (NPS) in the United States demonstrated that 39% of the respondents were not satisfied with their pain management [1]
- Additionally, at least 50% of patients seek out their HTC providers for pain management.[1]
- The NPS identified persons with hemophilia (PWH) reported daily pain 4.2/10. [1]
- PWH used very similar words when describing their acute and chronic/persistent pain, leading to the conclusion that they had difficulty differentiating between acute versus chronic pain. [1]
- While the majority of PWH reported using factor appropriately for an acute bleed (84%), nearly 58% also reported using factor to treat what they described as chronic/persistent pain.[1]
- Questions on the pain management knowledge base of those who treat hemophilia arose after the publishing of the NPS.

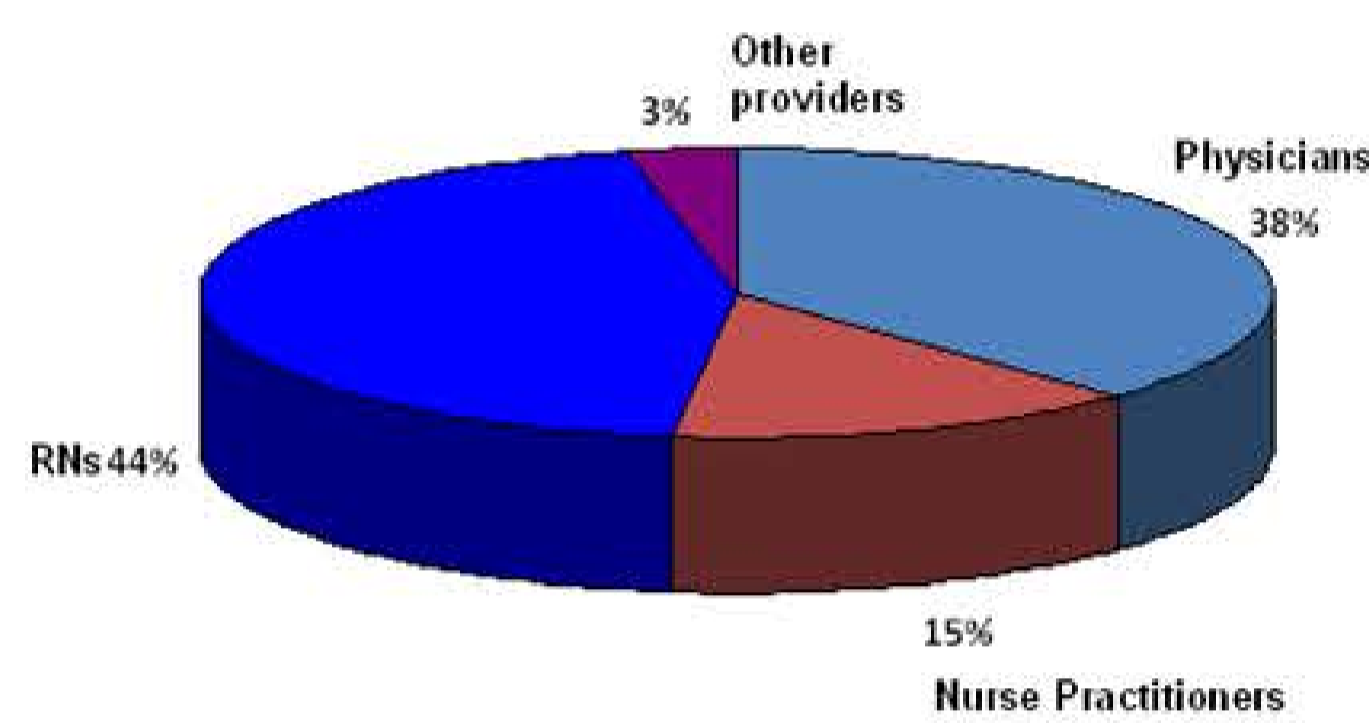
Aim

The purpose of this study is to assess the knowledge and attitudes of hemophilia providers in the United States regarding pain assessment and treatment

Results

Response rate = 28.7 %

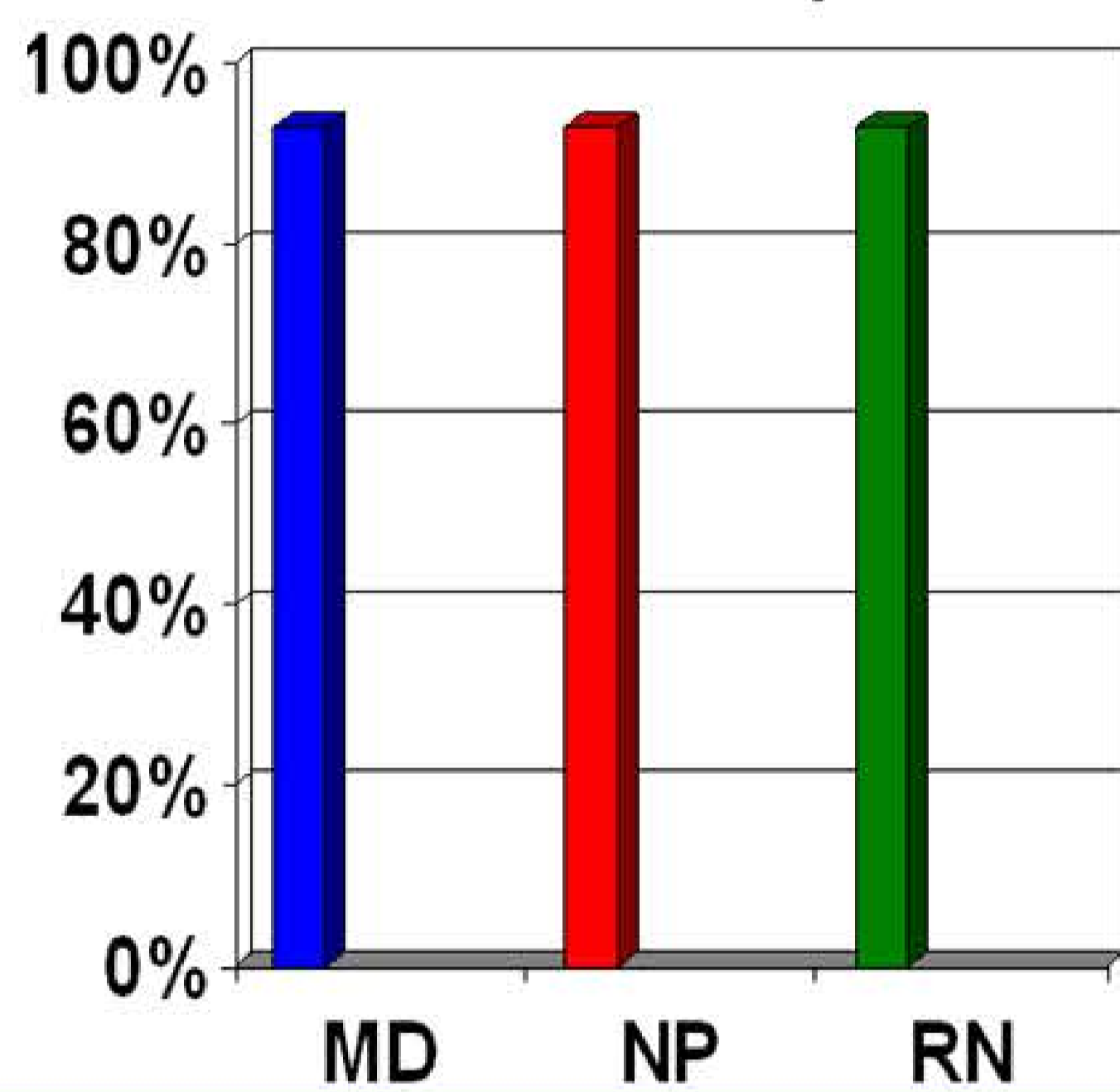
Participant Demographics: N = 152



Most responders were:

- Female (78%)
- Average age 49 years (range = 27-70 years of age)
- 67% of providers' HTCs serviced >151 patients
- 45% of providers' HTCs serviced the lifespan of patients
- All regions were represented
- 82% had **never taken** advance training in pain management
- Of those who **had taken** advance pain training
 - 72% were NPs/RNs
- 57% had >20 years experience in **health care**
- Experience in **care of bleeding disorders**
 - 28% - 0-5 years
 - 21% - 6-10 years
 - 19% - 11-15 years
 - 8% - 16-20 years
 - 24% >20 years experience

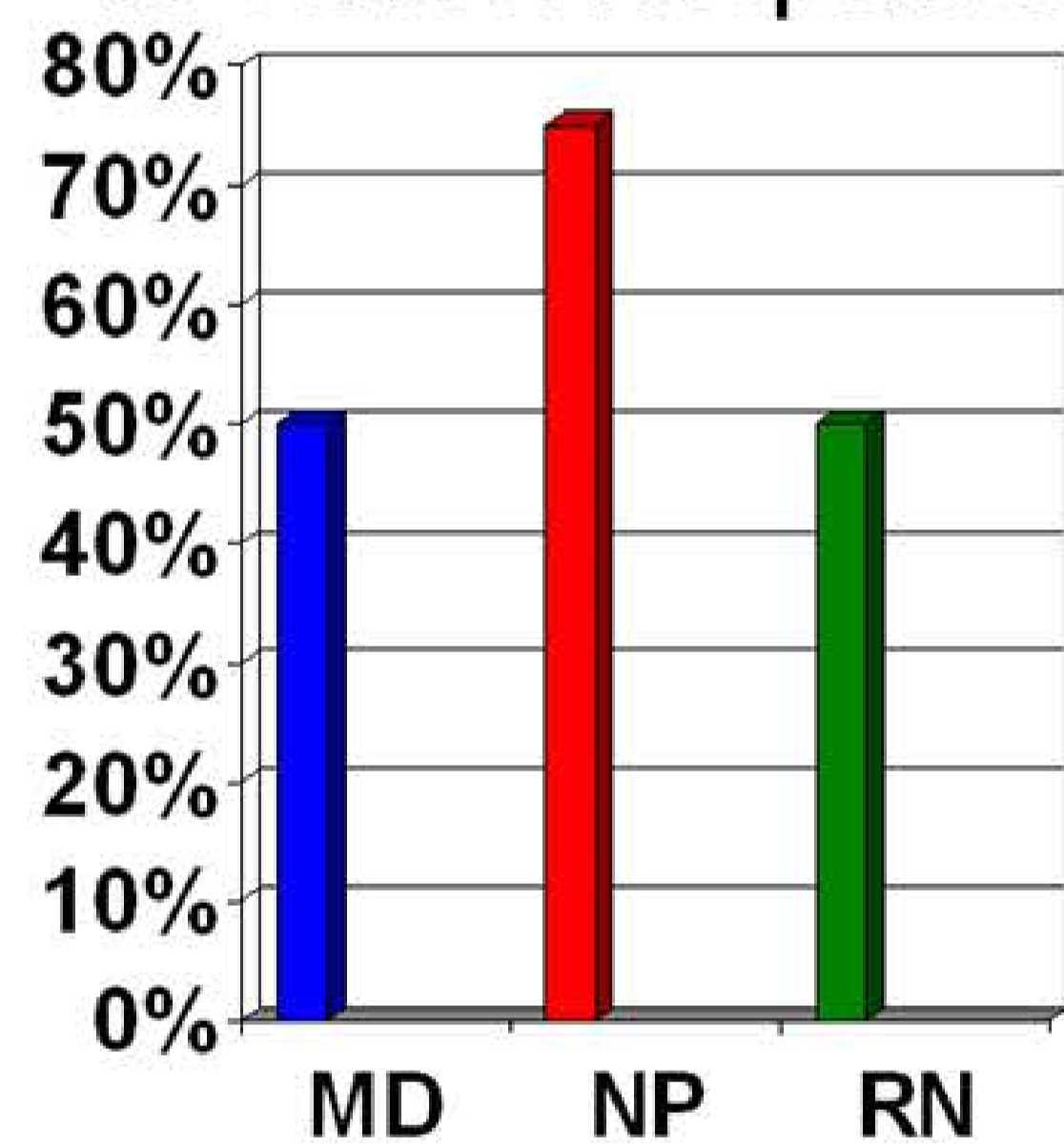
Assessment Category % Correct Responses



Assessment Questions: (<80% rate correct)

- #5. Respiratory depression rarely occurs in patients who have been receiving stable doses of opioids over a period of months (**True**)
- #12. If the source of the patient's pain is unknown, opioids should not be used during the pain evaluation period, as this could mask the ability to correctly diagnose the cause of pain (**False**)

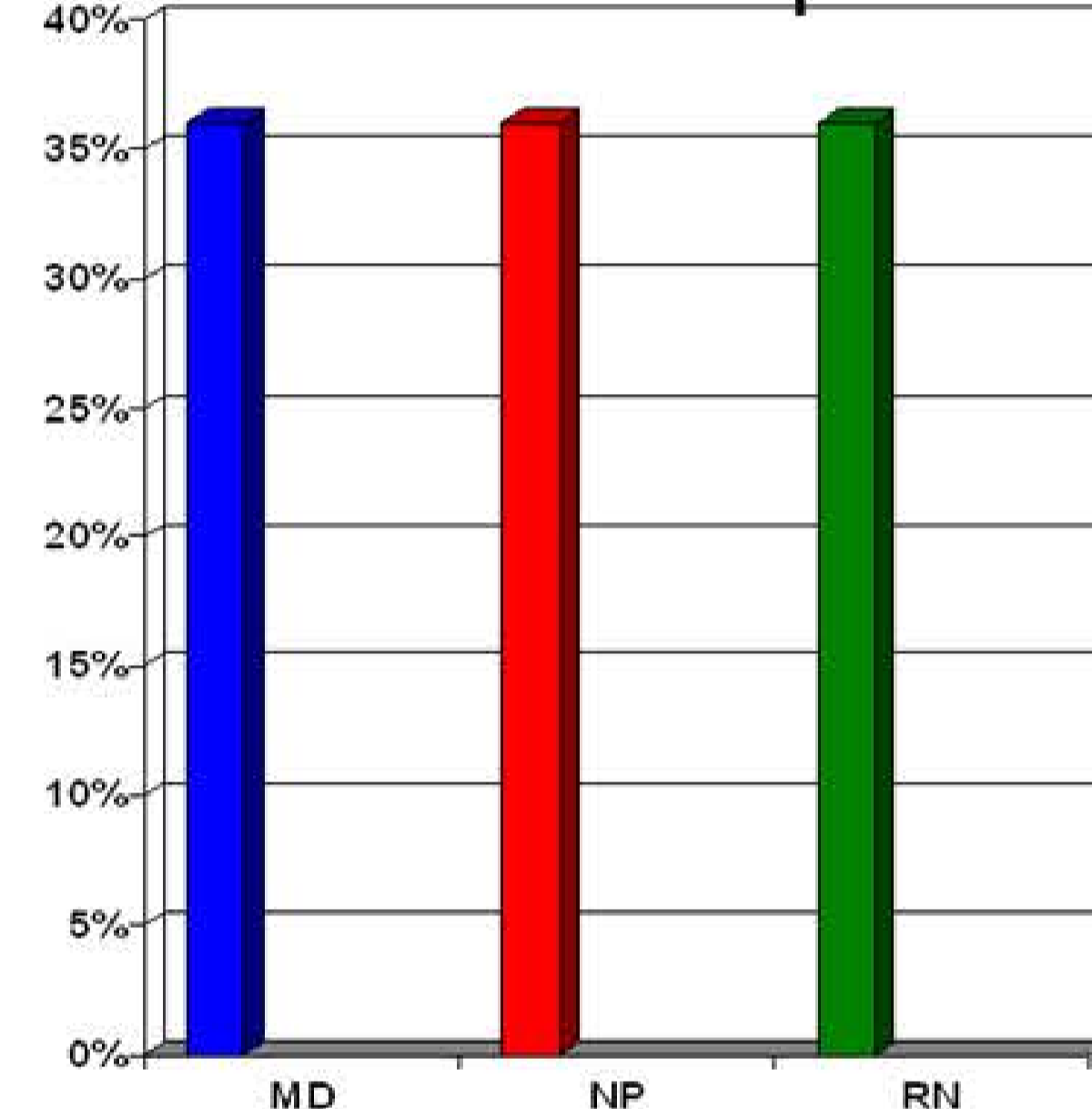
Attitudes Category % Correct Responses



Attitudes Questions: (<80% correct)

- #2. You assessed your post-op patient two hours after he received morphine 2 mg IV. Half hourly pain ratings following the injection ranged from 6 to 8 and he had no clinically significant respiratory depression, sedation, or other untoward side effects. He has identified 2/10 as an acceptable level of pain relief. His physician's order for analgesia is "morphine IV 1-3 mg q1h PRN pain relief." The correct action is: (give MS 3 mg IV now)

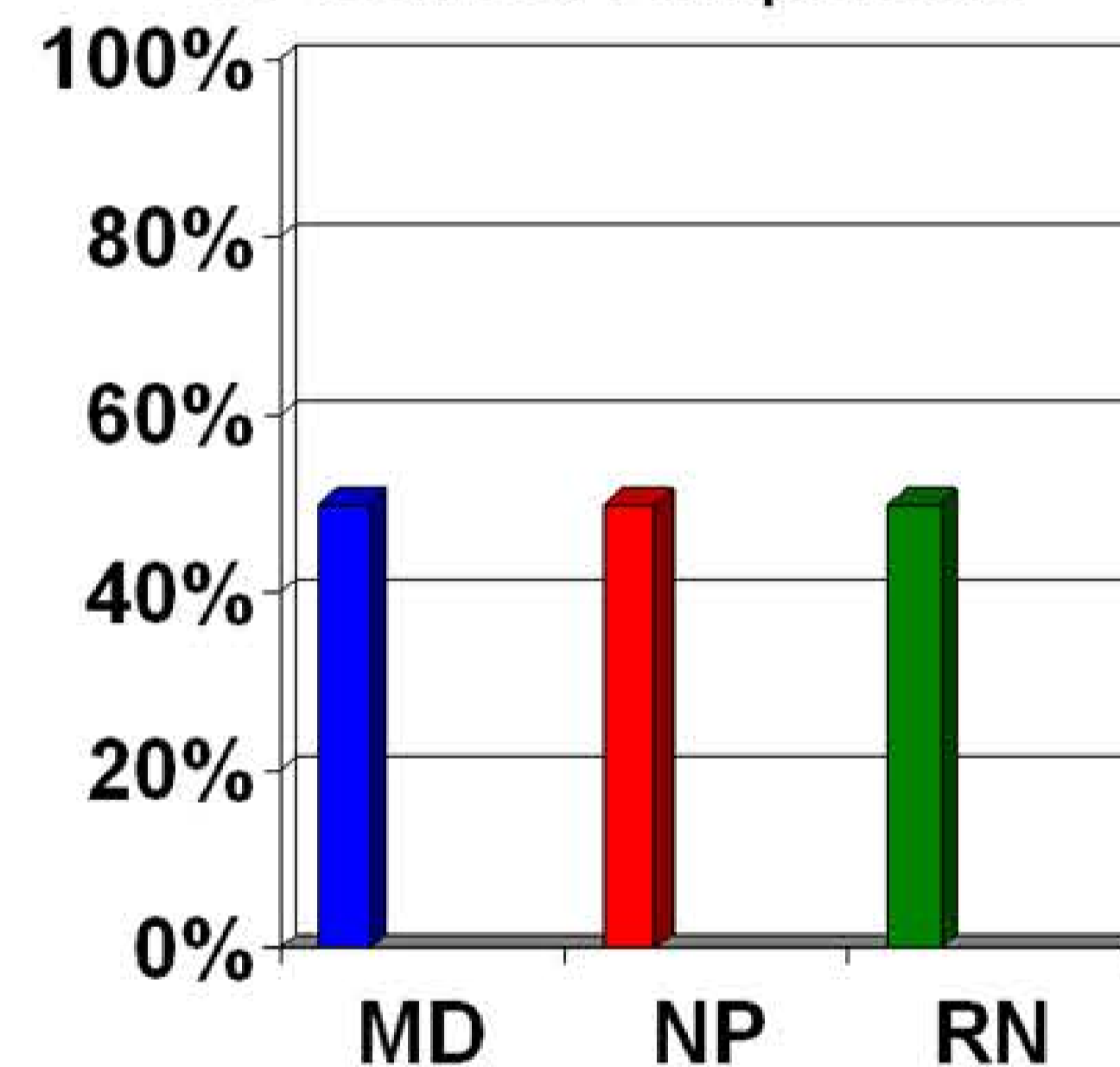
Pharmacology Category % Correct Responses



Pharmacology Questions: (<80% correct)

- #3. Research shows that promethazine & hydroxyzine are reliable potentiators of opioid analgesics (**False**)
- #4. Morphine has a dose ceiling (**False**)
- #5. Vicodin (hydrocodone 5 mg + acetaminophen 500 mg) PO is approximately equal to 5 - 10 mg of morphine PO (**True**)
- #7. Benzodiazepines are not effective pain relievers unless the pain is due to muscle spasm (**True**)
- #8. The recommended route of administration of opioid analgesics for patients with persistent pain is (**Oral**)
- #10 The following analgesic medications is considered the drug of choice for the treatment of prolonged moderate to severe pain (**Morphine**)
- #12 A patient with persistent pain has been receiving daily opioid analgesics for 2 months. Yesterday the patient was receiving morphine 200 mg/hour intravenously. Today he has been receiving 250 mg/hour intravenously. The likelihood of the patient developing clinically significant respiratory depression in the absence of new co morbidity is (<1%)
- #14. The time to peak effect for morphine given orally is (1-2 hours)

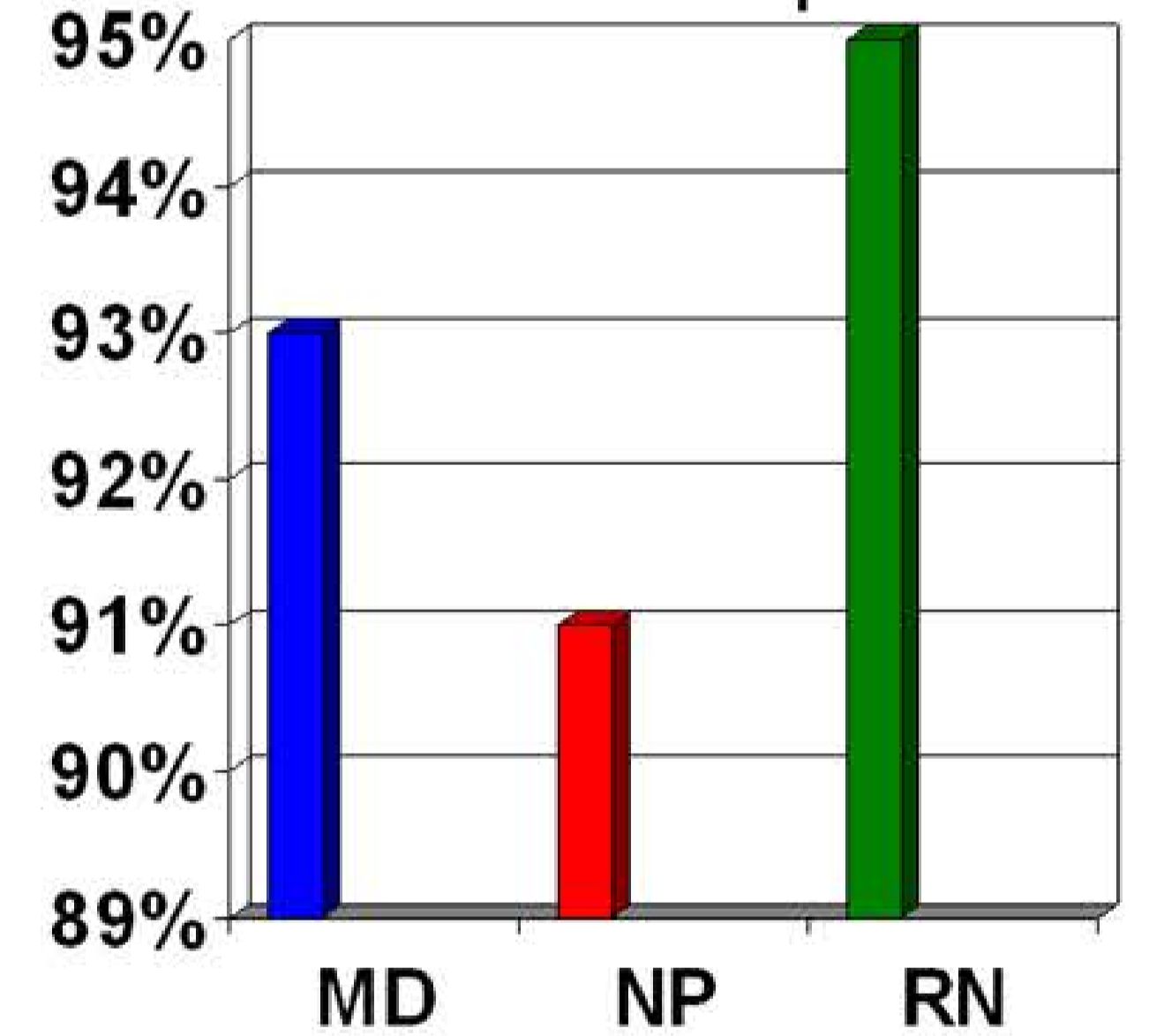
Substance Abuse Category % Correct Responses



Substance Abuse Questions: (<80% rate correct)

- #3. How likely is it that patients who develop pain already have an alcohol and/or drug abuse problem? (5-15%)
- #4. Following abrupt discontinuation of an opioid, physical dependence is manifested by: (Sweating, yawning, diarrhea and agitation)

Treatment Category % Correct Responses



Treatment Question: (<80% rate correct)

- #26-Giving patients sterile water by injection (placebo) is a useful test to determine if the pain is real. (**False**)

Review of the Literature

- There is no literature specific to hemophilia providers regarding knowledge & attitudes of pain
- Knowledge, attitude, and practices among health care professional regarding pain in children was completed in India.
 - With an 89% response rate (61% nurses; 38.9% pediatric residents)
 - Nearly 2/3rds of respondents felt that non-pharmacological measures were better to control pain. [2]
- A 32-item survey was used to assess Wisconsin physician's knowledge, beliefs, and attitudes toward opioid analgesic use with a 36% response rate.
 - At least half of the respondents considered diversion a moderate or severe problem.
 - Majority considered addiction to be a combination of physiological and behavioral characteristics rather than a behavioral syndrome.
 - Only 1/2 of the physicians felt that prescribing opioids was acceptable for nonrelated cancer pain. [3]
- Douglass [4] evaluated department of medicine staff, interns, residents regarding awareness of institutions pain management guidelines; self-reported comfort level with assessment, equianalgesic dose conversion and management of breakthrough pain using standardized case vignettes.
 - 23% of respondents reported awareness of the pain management guidelines.
 - Interns were significantly less confident than senior residents with pain management skills.
 - Attending physicians were non-significantly more confident than senior residents.
 - Providers require more awareness of pain management guidelines to ensure optimal pain management.
- A multicenter, observational, analytical and cross-sectional study assessed registered nurse working in general surgery and oncology in level III hospitals regarding their knowledge and attitudes on pain.
 - 72% response rate
 - 58% of nurses indicated they had specific training on pain.
 - 93.8% felt that the patient was the best person to accurately assess the intensity of pain, although 46% of nurses felt that patients exaggerated the intensity of pain.
 - 61.9% did not know the equivalence between oral and intravenous morphine.
 - Results suggest that specific training is required. [5]

Methods

A Survey Monkey™ Knowledge & Attitudes Survey regarding pain management was sent to every physician and registered nurse listed on the Center for Disease Control (CDC) Bleeding Disorders website. This validated study was approved by the Munson Medical Center Internal Review Board (IRB). This convenience sample of providers were asked to complete 38 true/false and Likert scale questions specific to pain management. A total of 529 surveys were sent via email to hemophilia treatment center (HTC) providers across the United States in April of 2012. Questions were divided into sub-categories:

- A. Assessment (15);
- B. Treatment (1);
- C. Pharmacology (14);
- D. Substance Abuse (4);
- E. Attitudes (4)

Conclusions

- Assessment questions were answered correctly more frequently than any other categories.
- Despite participant's ability to assess appropriately, knowledge deficits were noted in all other categories of pain management.
- The largest deficits were noted in the pharmacology category where 64% of all participants (MD, NP, RN) had incorrect responses.
- Of four substance abuse questions, only two were answered correctly more than 85% of the time. The remaining questions demonstrated a significant knowledge deficit in this area.
- Personal attitudes continue to present a potential barrier to pain management.
- As PWH most often seek their HTC provider for pain management, provider's educational needs and attitudes with respect to pain management can be improved.
- Continued education is needed in the area of pain management for persons with bleeding disorders.

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