Impact of opioid protocol on patient access to naloxone and morphine milligram equivalents-prescribing trends

I. Background

In 2018, there were 67,367 drug overdose deaths in the United States. Approximately 91% of those deaths involved an opioid, prescription or illicit.\(^1\) The U.S. Department of Justice and individual states are enacting interventions to combat opioid overprescribing and mitigate opioid-related deaths. The U.S. Department of Justice is cracking down on opioid overprescribing with hefty fines and prison sentences.\(^2\) Twenty-eight states have laws surrounding prescribing opioid limits.\(^3\) Fifteen states have created laws that limit acute opioid prescriptions to seven days or less and three states have five-day limits. Five states have created morphine milligram equivalent (MME) limits on opioid prescriptions. Quantity and MME limits are just two of the many interventions that states have put in place to combat the opioid crisis, and pharmacists are responsible for ensuring compliance with these mandates.\(^4\)

The Centers for Disease Control and Prevention (CDC) recommends naloxone for patients with a history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use.\(^5\) Access to naloxone greatly depends on the state. Patients may have access to naloxone kits through standing orders at pharmacies, local community-based organizations, law enforcement officials, and emergency medical services. As of 2017, all states had laws increasing public access to naloxone, however these laws vary from state to state.\(^6,7\)

Pharmacists can serve as a first line of defense by engaging in prevention and treatment efforts of opioid use disorder and overdose.\(^8\) Community pharmacists are the most widely accessible healthcare professionals, with more than 90% of Americans living within five miles of a community pharmacy.\(^9\) Pharmacists are checking prescription monitoring programs (PMP) and utilizing clinical judgement in evaluating prescriptions brought in by patients to watch for opioid overdose potential and signs of abuse on a daily basis. Community pharmacies are becoming drug take-back locations and naloxone dispensing sites.
In Idaho, providers write more opioid prescriptions than the national average by 10.5 prescriptions per 100 patients. It is estimated that 48% of all drug-induced deaths in Idaho were associated with an opioid, although that number is not complete and is believed to be an underestimate. Pharmacists in Idaho have been able to prescribe opioid antagonists independently since 2017. Anyone with a valid reason can ask the pharmacist for a prescription of naloxone in Idaho and it does not need to be intended for their own use.

Shaver’s Pharmacy and Compounding Center (Shaver’s) is an independent, community pharmacy in Southeast Idaho that has adapted a multi-faceted approach for pharmacist prescribing of naloxone. Shaver’s serves the town of Pocatello (population 56,637) and surrounding areas in southeast Idaho. Although technically non-rural, the pharmacy has patients that drive as far as 2 hours to pick up medications and also mail compounds to surrounding rural states.

II. Objectives

The objective of this study is to evaluate the impact of a novel opioid workflow and pharmacist independent prescribing protocol for naloxone in an independent, community pharmacy on chronic opioid patients and employee engagement in the workflow and protocol. Specific endpoints measured were: the change in percentage of patients with at-home access to naloxone, change in percentage of naloxone prescribed by pharmacists, the change in MMEs prescribed per patient per month, and pharmacy employee perception of the protocol.

III. Practice Description

As a Community Pharmacy Enhanced Services Network (CPESN) pharmacy, Shaver’s Pharmacy and Compounding Center (Shaver’s) offers several standard and enhanced clinical services. In addition to standard dispensing services, the pharmacy offers medication bubble-packing; medication synchronization; a pediatric adherence program; immunizations; and injectable medication administration. Shaver’s has a durable medical equipment (DME) department for expanded DME, diabetic shoes, mastectomy fittings, and CPAP/bi-pap fitting. The pharmacy offers a multitude of enhanced non-
dispensing services: medication therapy management (MTM), hormone replacement therapy consultations, Mantoux tuberculin skin testing, blood pressure monitoring, insurance physicals, point-of-care and CLIA-waived testing, and pharmacist independent prescribing (uncomplicated urinary tract infection, influenza treatment and prophylaxis, group A Streptococcus pharyngitis, short acting beta agonists, statins, cold sores, naloxone, epinephrine, and immunizations). In addition to these services, Shaver’s is a USP 800-compliant, PCAB, PCCA, and NABP-accredited compounding center and offers sterile, non-sterile, and hazardous compounding. The pharmacy staff is trained to work in all areas of the pharmacy and regularly adapt to new workflows as new services are added. Shaver’s processes roughly 1800 prescriptions per week with a patient payer population of 43% commercial, 28% Medicare, 21% Medicaid, and 8% cash.

IV. Practice Innovation

Shaver’s has created an opioid dispensing policy, opioid dispensing workflow, and a pharmacist independent prescribing protocol for naloxone. The opioid dispensing policy was created to ensure that each patient on an opioid is aware of the risk of opioids prior to taking them. The purpose of the workflow is to proactively identify those patients who are at a greater risk for an opioid overdose based on CDC guidelines of MME ≥ 50 and ensure these patients are given the option to have access to naloxone. The pharmacist independent prescribing protocol for naloxone allows pharmacists to independently prescribe naloxone in the pharmacy as a result of the workflow intervention. The workflows are described here in detail in the hopes that they can be implemented at other pharmacies.

Opioid Dispensing Workflow

When an opioid prescription is dropped off with a data-entry technician, the daily MME is calculated for that prescription. The technician checks the Idaho prescription monitoring program for other opioid or benzodiazepine use and frequency of prescription fills. If the requested prescription fill is too soon, as determined by the pharmacy’s controlled substances policy or insurance refusal, the prescription is placed
on hold or returned to the patient. For opioid prescriptions for 14 days or less, naloxone is not offered, and the patient is counseled on proper opioid disposal. For opioid prescriptions with day supply greater than 14 days and if the patient’s daily MME ≥ 50, the initial medication workflow or chronic medication workflow are started. The algorithm for those patients can be found in figure 1. If the patient’s daily MME is < 50, the prescription is dispensed without activating a workflow.

Workflow-related forms

The initial opioid monitoring form consists of 2 pages. The first page is a 12-question patient questionnaire to receive information on the purpose of the opioid being filled, social and medical history as relevant to opioid use, and pain-related questions. The second page has a key for referral based on the answers to the patient questionnaire, a blank to write MMEs, and the pharmacist’s assessment, plan, and signature. Once the patient has been on an opioid for 6 months, the patients fills out the chronic opioid monitoring form and updates their information.

The initial opioid monitoring form is accompanied by four education pages from the Centers of Disease Control and Prevention (CDC) and the Narcan (ADAPT Pharma, Inc.) websites. Three pages from the CDC cover opioid risks and adverse effects, safe opioid practices, and a list of non-opioid pain options. A single page from the Narcan (ADAPT Pharma, Inc.) website includes education on opioid overdoses, the role of naloxone, and how to use Narcan in the event of an overdose.

The chronic opioid monitoring form consists of 2 pages. The first page is a 7-question patient questionnaire to gather information on the purpose of the opioid prescription, alcohol and opioid use, changes to current medications, and pain related questions. The initial opioid monitoring form differs from the chronic opioid monitoring form because it asks about the patient’s history in addition to pain and medication-related questions. The second page includes a key for which counseling points the pharmacists should use at prescription pick-up, changes to make on the patient’s pharmacy software profile, if any other pain-related assessments need to be made, and relevant monitoring points. It also includes a place for calculated MME and the
pharmacist’s assessment, plan, and signature. The patient updates this form every 6 months.

The opioid monitoring patient disclaimer consists of an explanation of the process of picking up an opioid prescription at Shaver’s, descriptions of additional services of naloxone counseling and prescribing, and a patient attestation. The patient attestation includes calculated MME, documentation of naloxone offer, patient response to naloxone offer, patient signature confirming counseling on opioid therapy and the importance of naloxone. This form is signed by the patient and pharmacist and updated by the patient every 12 months.

The naloxone prescribing form serves as the patient assessment template and the naloxone prescription. On the top half, the pharmacist checks the criteria for pharmacist prescribing of naloxone. The bottom half acts as the prescription and has every naloxone dosage form listed with appropriate directions. The pharmacist checks the box beside the desired dosage form and fills in the quantity, refills, DAW, and primary care provider. Once signed, entered, and filled, a notification is sent to the patient’s primary care (PCP) provider through the pharmacy’s eCare plan platform and the communication with the PCP is documented on the naloxone form.

Initial Medication Workflow

New opioid prescriptions that have MME ≥ 50 initiate the initial medication workflow (Fig 1). The opioid workflow packet consists of the ‘initial opioid monitoring form,’ ‘opioid monitoring patient disclaimer,’ and four pages of opioid overdose education from the naloxone manufacturer’s website. Seven days after dispensing a first fill of an opioid, regardless of the pick-up method, the patient receives a medication follow-up phone call. The pharmacy team member completing the call has a script of four questions related to efficacy, adverse reactions, and general concerns.

Chronic Medication Workflow

Chronic opioid patients are required to update their chronic opioid monitoring form every six months and opioid monitoring patient disclaimer annually. If a known chronic opioid user has not updated their forms, their name is written on the appropriate
form and placed in the accordion in the dispensing part of the pharmacy centrally located for any pharmacy team member to utilize as a part of the opioid workflow.

Documentation Workflow

After paper documentation of the opioid workflow or naloxone prescribing protocol, the intervention is documented in the patient’s profile in the pharmacy dispensing software. The documents are scanned in and the date of completion is recorded in the patient memo. The pharmacy team is requested to document the encounter under the patient’s profile in the pharmacy’s eCare plan platform.

V. Evaluation Methods

This project was determined to not meet the definition of research by Idaho State University’s Institutional Review Board and was therefore not subject to review. This project was funded in part by an Incentive Grant from the American Pharmacists Association Foundation.

Naloxone chart review

A basic report of naloxone dispensed each month from January 01, 2017 to December 31, 2018 was run to gather a baseline for naloxone dispensing. These dates were determined due to the expiration date on dispensed naloxone products. Naloxone prescriptions, prescription status, month written and dispensed, prescriber category, and insurance type were collected. Patients listed on naloxone reports had their profiles in the eCare plan platform and pharmacy software checked for documentation of naloxone intervention. There was no documentation of declined naloxone prior to implementation of the protocol-- naloxone on hold on a patient’s chart was determined to have been declined by the patient. This data was analyzed using descriptive statistics.

MME Retrospective chart review

Patients were identified for this study using reports from the pharmacy dispensing software. All patients with combined opioid MMEs greater than or equal to
50 per day were included in the study. For identified patients, the following data points were collected via chart review and reports and collated in a spreadsheet: monthly opioid medication(s)’s name, strength, and amount dispensed; opioid dispense date; naloxone prescription presence on profile; naloxone prescription status (filled or on hold); naloxone prescriber title; and completion of documentation of all opioid protocol components. From the opioid fill data, the following were calculated per patient: MME per month, average MME per day. This data was analyzed using descriptive statistics.

Employee Questionnaire

Four employee-facing, position-specific questionnaires were designed to gather feedback about the implementation of the protocol into workflow and to assess staff knowledge of opioid overdose and naloxone; the questionnaires were specific to pharmacist, intern, technician, and non-dispensing support staff. The master questionnaire is provided as Appendix A. The questionnaires were reviewed by 12 pharmacists: 6 pharmacy residents and 6 pharmacy faculty members, none of whom are affiliated with the dispensing site. For clarity, the questionnaires were labeled clearly, printed on different colors of paper, and asked a demographic question about the employee’s position to ensure each employee filled out the correct questionnaire.

The questionnaire was a mixture of Likert-scale statements that differed based on position, a multiple-choice question assessing knowledge of naloxone, and five open-ended questions based on employee position. All questionnaires consisted of a core set of 9, 5-point, Likert-style questions that evaluated the opioid workflow and employee knowledge and perception of naloxone. Differences to the position-specific questionnaires related to comfort in patient engagement and confidence in ability to carry out the opioid workflow. Pharmacists were additionally asked about confidence in their staff.

The questionnaires were presented in February 2020, 7 months after opioid workflow implementation. At a Shaver’s managers meeting, the purpose of the questionnaire, instructions for completing and returning the questionnaire, and the consent disclaimer on the title page were explained. Questionnaires were passed onto the rest of the pharmacy staff by team leaders. Employees had two weeks to complete
the questionnaire and return to a designated basket in the pharmacy. Themes from free-response questions were analyzed by the primary author and checked by a co-investigator for congruency.

VI. Results
Naloxone chart review

In 2017, eight naloxone prescriptions were dispensed and three placed on hold. In 2018, six naloxone prescriptions were dispensed, and one placed on hold. In 2019, 46 naloxone prescriptions were dispensed and 19 placed on hold. The patients who picked up naloxone during 2019 had a payer breakdown of 40% Medicare, 38% Medicaid, 22% commercial, and 0% cash. A comparison of 2017, 2018, and 2019 naloxone sold by month can be seen in Figure 2.

A total of 13 naloxone prescriptions were written in 2019 prior to implementation of the opioid protocol--eight were dispensed and five were put on hold. Of the 13 prescriptions written, nine were written by pharmacists, two by physicians, and two by mid-level practitioners. Of the chronic opioid patients, 7% had at-home naloxone access prior to protocol implementation. In June 2019, the month the protocol was initiated, 27 naloxone prescriptions were written. A total of 25 naloxone prescriptions were written from July to December. Throughout 2019, pharmacists were the primary prescribers of naloxone. Of the 65 naloxone prescriptions written in 2019, 52 were written by pharmacists (80%), seven by physicians (10.8%), and six by nurse practitioners or physician assistants (9.2%). The breakdown of naloxone prescribing by profession and month for 2019 can be found in Figure 3. By the end of 2019, 18.25% of the total 252 opioid patients that qualified for the opioid protocol had at-home access to naloxone and an additional 7.54% had been offered naloxone. The progression of percentage of patients with at-home access to naloxone throughout 2019 can be seen in Figure 4.

MME chart review

In 2019, Shaver’s had 1,630 unique patients who were dispensed a controlled substance. All non-opioids prescriptions were removed from the list, leaving 1,024 patients. The remaining patients’ total opioid MMEs per day were calculated and those
less than 50 were removed. A total of 252 individual patients with total opioid MME ≥50 were included in the study. The average number of opioid patients per month was 130 (range 116-141).

Daily MMEs were calculated for each patient for each month excluding June because it was the month of protocol initiation. Measures of variance were calculated for each month based on MMEs dispensed to each month’s cohort of patients. The measures were then compared across the study period. Two patient data points (approximately 1.5% of patients per month) with average daily MME >1200 were removed from these analyses because they severely skewed the data. The median MMEs dispensed for all months was consistently 90 except for January, when the median was 84. The mode was consistently 90 except for 60 in January, September, and October. The mean MME dispensed consistently fluctuated with a range of 121.64 to 136.43. The mean MME stayed consistently in the 120s from August to December 2019, but never surpassed the lowest mean from prior to protocol implementation, 121.64 in January 2019. There were no trend changes across the year in mean, mode, or median. Upon review of individual patient data, four patients total across the entire study time frame (3/252, 1.2% of total patient population) had a decrease and downward trend in average daily MME starting in July 2019.

Employee Questionnaire

The paper questionnaire was presented at a manager meeting as planned and distributed to employees by their team leader. 16 of 28 employees (57%) responded to the returned questionnaire, either partially filled (2/28 or 14%) out or completed. The breakdown of employee respondent’s positions and results from the Likert scale statements can be found in Table 1. Blank spaces in the table indicate that this particular statement was not included in that position’s questionnaire. Every employee answered the knowledge multiple choice question correctly. One employee picked the correct answer and 2 incorrect answers.

Free Response Themes
The themes from the free-response questions were a need for additional training on the workflow, inconsistencies with workflow utilization, and support for naloxone access for patients. The responses indicated inconsistent training on all parts of the opioid policy, workflow, and naloxone prescribing protocol, particularly with relation to follow-up on completed forms (e.g., date of initial completion not recorded).

Respondents noted difficulties related to implementation of the workflow when the pharmacy was busy and a decline in workflow utilization over time. Naloxone-specific comments highlighted the role of this drug in combating the opioid epidemic and support for increased access for patients to naloxone. Anticipated future concerns regarding the workflow included patient resistance to update paperwork, missing patients due to inconsistent implementation of the workflow, and continued constraints on pharmacy staff time impacting maintenance of the workflow.

VII. Practice Implications

For the primary endpoint, at-home access to naloxone for chronic opioid patients, this project noted an increase from 3% in January 2019 to 18% in December 2019, an absolute change of 15%. The increase was expected with protocol implementation, however the end percentage of patients with at-home access to naloxone remains concerning—only 46/252 patients had naloxone in their homes by the end of 2019. There was an increase in naloxone prescribed by pharmacists after protocol implementation. The return to baseline seen in monthly pharmacist prescribing of naloxone may reflect a decline in interest from patients and a theme from the employee questionnaire that the implementation of the protocol waned towards the end of 2019. There was a slight decrease in overall average MMEs per month, but not enough to consider causation from the protocol. The lack of change in MMEs prescribed is not surprising as this was not a goal of the opioid workflow, but clearer phrasing of MME daily levels and need for naloxone when communicating with prescribers may have a greater impact on this metric.

The employee questionnaire revealed a gap between the expectations of the employers and the self-perceived capacity of employees in regard to incorporating the
added time into current workflow, engaging patients in difficult conversations, and labor expectations for each position.

This study has several limitations. Lack of documentation was problematic for collecting data and limited the parts of the workflow that could be assessed. While checks for accuracy were completed, the possibility of human error in data manipulation when calculating patient MMEs remains. It is possible that the reporting capabilities from the pharmacy software resulted in missing patients for inclusion in the study. Inconsistent follow-through from employees may have shifted results, although it is unlikely to have inflated data—fewer patients being identified as having high daily MMEs may have resulted in fewer patients being offered naloxone, thereby driving results for the primary endpoint down. Another limitation is that excluded June in data collection could have unintentionally impacted the perceived amount of opioid dispensed. There was no change see, but because we didn’t do a ‘30-day from first fill’ calculation per patient we likely have math errors based on when patients were filling.

The future directions of the workflow involve increasing employee training on the protocol, patient engagement, and eCare plan documentation. There should also be changes to promote protocol use, such as having a physical copy of the protocol available at all stations in the pharmacy and having incentives for employees completing the protocol. The language being used in documentation and physical outreach should be reviewed for possible changes. A template could be made to standardize the message being sent out to physicians. The study could also be repeated with patient’s with MME greater than or equal to 30 plus benzodiazepines to include another CDC recommended patient population.

VIII. Conclusion

Despite the limitations, this project demonstrated small successes and provides opportunity for Shaver’s and other pharmacies to build upon. The opioid workflow and protocol, while successful at initially increasing rate of naloxone prescribed to chronic opioid patients, may need to be revised to make it sustainable. In adapting this workflow for other community sites, tweaks to implementation might be considered, such as
streamlining workflow, changing language in provider documentation to promote a change in MMEs, and creating additional training for members of the pharmacy team.

References


6. DeSimone II, E., Tilleman, J., Kaku, K., Erickson, C., Expanding access to naloxone. US Pharm. 2018;43(3):16-20


Figure 1 Shaver’s opioid workflow

Prescription Drop Off

Proxy Pick Up
- Send packet with proxy
  - Packet follow-up on day 7
    - Must have signed packet before 3rd opioid fill

In-store Pick Up
- Initial Opioid Monitoring Form provided at drop off
  - Packet reviewed and naloxone offered at checkout

Delivery
- Send packet with driver
  - Return signed packet to pharmacy
    - Optional: Mail or deliver naloxone

Pick Up Later
- Opioid packet hung up with prescription
  - Packet reviewed and naloxone offered at checkout
Figure 2: Comparison of naloxone sold 2017-2019

Number of Naloxone Rx Sold

- January 2017
- February 2017
- March 2017
- April 2017
- May 2017
- June 2017
- July 2017
- August 2017
- September 2017
- October 2017
- November 2017
- December 2017

- January 2018
- February 2018
- March 2018
- April 2018
- May 2018
- June 2018
- July 2018
- August 2018
- September 2018
- October 2018
- November 2018
- December 2018

- January 2019
- February 2019
- March 2019
- April 2019
- May 2019
- June 2019
- July 2019
- August 2019
- September 2019
- October 2019
- November 2019
- December 2019
Figure 3: Comparison of naloxone prescriptions written by profession in 2019

Naloxone Writing by Health Profession

<table>
<thead>
<tr>
<th>Month</th>
<th>PharmD</th>
<th>MD/DO</th>
<th>NP/PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>40%</td>
<td>33%</td>
<td>25%</td>
</tr>
<tr>
<td>Feb</td>
<td>60%</td>
<td>67%</td>
<td>75%</td>
</tr>
<tr>
<td>Mar</td>
<td>100%</td>
<td>89%</td>
<td>78%</td>
</tr>
<tr>
<td>Apr</td>
<td>12%</td>
<td>71%</td>
<td>71%</td>
</tr>
<tr>
<td>May</td>
<td>11%</td>
<td>100%</td>
<td>75%</td>
</tr>
<tr>
<td>June</td>
<td>13%</td>
<td>25%</td>
<td>67%</td>
</tr>
<tr>
<td>July</td>
<td>14%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sept</td>
<td>33%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct</td>
<td>67%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec</td>
<td>33%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 4: Progressive comparison of percentage of opioid patients with at-home access to naloxone in 2019.
### Table 1. Employee questionnaire Likert scale statement results

<table>
<thead>
<tr>
<th>Likert Scale (1-strongly disagree, 2-disagree, 3-neither, 4-agree, 5-strongly agree)</th>
<th>Pharmacist (N=3) Mode, Mean (range)</th>
<th>Intern (N=3) Mode, Mean (range)</th>
<th>Technician (N=8) Mode, Mean (range)</th>
<th>Non-dispensing Support Staff (N=2) Mode, Mean (range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The opioid protocol is important.</td>
<td>5, 4.67 (4-5)</td>
<td>5, 5 (5-5)</td>
<td>5, 4.88 (4-5)</td>
<td>5, 5 (5-5)</td>
</tr>
<tr>
<td>My role in the opioid protocol workflow is valuable.</td>
<td>5, 5 (5-5)</td>
<td>4, 4.33 (4-5)</td>
<td>4, 4.25 (4-5)</td>
<td>3, 3 (3-3)</td>
</tr>
<tr>
<td>I have an impact on patient care because of the opioid protocol.</td>
<td>5, 5 (5-5)</td>
<td>4, 4.33 (4-5)</td>
<td>4, 3.71 (3-5)</td>
<td>NA, 4.5 (3-5)</td>
</tr>
<tr>
<td>The division of labor of the opioid protocol workflow is appropriate for pharmacists.</td>
<td>4, 4.33 (4-5)</td>
<td>NA, 4 (3-5)</td>
<td>4, 3.88 (3-5)</td>
<td>NA, 4.5 (4-5)</td>
</tr>
<tr>
<td>The division of labor of the opioid protocol workflow is appropriate for interns.</td>
<td>4, 4.33 (4-5)</td>
<td>NA, 3.33 (2-5)</td>
<td>4, 4 (3-5)</td>
<td>NA, 4.5 (4-5)</td>
</tr>
<tr>
<td>The division of labor of the opioid protocol workflow is appropriate for technicians.</td>
<td>4, 4.33 (4-5)</td>
<td>NA, 2.67 (1-5)</td>
<td>4, 4.13 (4-5)</td>
<td>NA, 4.5 (4-5)</td>
</tr>
<tr>
<td>The division of labor of the opioid protocol workflow is appropriate for cashiers</td>
<td>4, 4.33 (4-5)</td>
<td>NA, 3 (1-5)</td>
<td>4, 3.75 (3-5)</td>
<td>NA, 4.5 (4-5)</td>
</tr>
<tr>
<td>I feel comfortable talking with patients about naloxone.</td>
<td>3, 4.67 (4-5)</td>
<td>2.3 (2-4)</td>
<td>NA, 1.5 (1-2)</td>
<td></td>
</tr>
<tr>
<td>I feel comfortable talking with patients about opioids.</td>
<td>4, 4.33 (4-5)</td>
<td>2.3 (2-4)</td>
<td>NA, 1.5 (1-2)</td>
<td></td>
</tr>
<tr>
<td>I am confident in my ability to use the prescription drug monitoring program.</td>
<td>5, 5 (5-5)</td>
<td>5, 4.13(2-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am confident in my ability to calculate morphine milliequivalents.</td>
<td>4, 4.33 (4-5)</td>
<td>4, 4.25 (3-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am confident in my ability to counsel patients on naloxone.</td>
<td>5, 4.67 (4-5)</td>
<td>4, 4.33 (4-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am comfortable prescribing naloxone to patients.</td>
<td>5, 4.67 (4-5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am confident in the skills of the support staff.</td>
<td>5, 5 (5-5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am confident in the role of the support staff within the opioid protocol.</td>
<td>5, 4.67 (4-5)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Opioid Protocol Questionnaire

This questionnaire is for Caitie’s research project evaluating the opioid protocol. Your participation is **voluntary** and **will not** affect your job.

**Please complete the following questionnaire to the best of your ability. If you are uncomfortable answering a question, you can skip it.**

By completing this questionnaire, you are consenting to your responses being a part of the research data. Please note, all individual responses answers will be kept **anonymous**—data will only be presented in aggregate and any statements will be typed, rephrased, and reported as themes.

For questions or more information, please contact Caitie Brown at (205) 434-8284, Shanna O’Connor at (208) 220-4680, or Idaho State’s IRB at (208) 282-2179.

**Please return at the end of the meeting or to Caitie’s folder in the consultation room.**
1. Likert Scale Statements (strongly disagree, disagree, neither agree nor disagree, agree, strongly agree) with free text comments
   a. The opioid protocol is important.
   b. My role in the opioid protocol workflow is valuable.
   c. I have an impact on patient care because of the opioid protocol.
   d. The division of labor of the opioid protocol workflow is appropriate for pharmacists.
   e. The division of labor of the opioid protocol workflow is appropriate for interns.
   f. The division of labor of the opioid protocol workflow is appropriate for technicians.
   g. The division of labor of the opioid protocol workflow is appropriate for cashiers.

2. Non-dispensing support staff (Likert scale—strongly disagree, disagree, neither agree nor disagree, agree, strongly agree)
   a. I feel comfortable talking with patients about naloxone.
   b. I feel comfortable talking with patients about opioids.

3. Technicians (Likert scale—strongly disagree, disagree, neither agree nor disagree, agree, strongly agree)
   a. I feel comfortable talking with patients about naloxone.
   b. I feel comfortable talking with patients about opioids.
   c. I am confident in my ability to use the prescription drug monitoring program.
   d. I am confident in my ability to calculate morphine milliequivalents.

4. Interns (Likert scale—strongly disagree, disagree, neither agree nor disagree, agree, strongly agree)
   a. I feel comfortable talking with patients about naloxone.
   b. I feel comfortable talking with patients about opioids.
   c. I am confident in my ability to use the prescription drug monitoring program.
   d. I am confident in my ability to calculate morphine milliequivalents.
   e. I am confident in my ability to counsel patients on naloxone.

5. Pharmacists (Likert scale—strongly disagree, disagree, neither agree nor disagree, agree, strongly agree)
   a. I am confident in my ability to counsel patients on naloxone.
   b. I am comfortable prescribing naloxone to patients.
   c. I am confident in the skills of the support staff.
   d. I am confident in the role of the support staff within the opioid protocol.

6. Knowledge of naloxone
   a. What is the purpose of naloxone?
      i. To reverse the effects of opioids
      ii. To avoid adverse effects of opioids
      iii. To decrease dependence on opioids
      iv. To increase pain relief of opioids

7. Workflow Implementation and Perception of Naloxone (free text)
   a. What role, if any, do you think naloxone is playing in the opioid epidemic?
b. Who do you think should have access to naloxone?

c. What improvements do you think can be made to the current opioid protocol workflow?

d. What problems have you noticed within the opioid protocol workflow?

e. What problems do you foresee occurring in the future with the opioid protocol workflow?

8. Demographics:
   a. Please select your current position at Shaver's Pharmacy and Compounding Center?
      i. Pharmacist
      ii. Technician
      iii. Intern
      iv. Non-dispensing support staff