Unraveling the Mysteries of Writing Research and Clinical Abstracts

Gwenyth R. Wallen, RN, PhD
Chief
Nursing Research & Translational Science
NIH Clinical Center
**GENERAL HINTS**

- Content limited by specified word count, usually 250-300 words.
- Use review element specified by conference call for abstracts
- Include all specific elements requested including behavioral objectives.
INTRODUCTION

• Include two or three sentences about background and or significance of the problem you studied.

• Capture the reader’s (audience) interest.
METHODS

• Essential aspects of the methods utilized in the study including sample and instrumentation.

• For reviews of theoretical papers the methods may include specific scope of literature review.

• For a methods paper methods may include the essential features and range of application of the proposed method.

• For a clinical paper the method is the intervention.
RESULTS

• The main results of the research or the outcomes of the clinical intervention or practice issue.

• Include a sentence on qualitative and/or statistical analysis unless there is a separate section for analyses.
CONCLUSIONS

• The implications or meaning of the study.

• If the abstract is about ongoing research or clinical practice this section might include future implications and the relevance of the practice issue to the “bigger” picture.

• What questions are raised for future research or theory?
INCREASE YOUR ODDS BY USING THE CHECKLISTS!!
 TITLE CHECKLIST

- Are title and research/clinical question closely related
- Would you attend?
- Special study features mentioned?
- Tone of the title objective?
- Does title reflect conference theme
ABSTRACT CHECKLIST

- Even if there are not specific headings, are the introduction, methods, results and conclusions/implications included?
- Are the main features of the study included?
- Are the key results of the study stated in narrative form?
Do the conclusions/implications follow from the results to make a meaningful statement that ties the abstract together?

Did you follow all the submission rules?
Drawing a Crowd: Creating a Poster Presentation

CDR Mike Krumlauf, RN, BSN
Nurse Consultant
Nursing Research & Translational Science
NIH Clinical Center
BEFORE YOU START

• Letter of acceptance
• Preparation
• Poster type and size
EFFECTIVE POSTER PRESENTATIONS

• Organized and legible
• Concise, use the most pertinent information
  • Use bullet points whenever possible
• Visually enticing
• Presented clearly
• Remember the 10:10 rule
• Use graphics that enhance BUT don’t distract
CLINICAL POSTER LAYOUT

• Introduction/Background
• Intervention
• Clinical practice outcomes
• Conclusions/Implications
• Future Directions
• References/Acknowledgements
BACKGROUND

Nanotechnology is a new trend making its way into the medical community to both detect and diagnose diseases, along with treating patients.

Targeted therapy using nanotechnology is emerging into Oncology clinical research trials.

Goal of Using Nanotechnology: Target malignant cells, while preserving healthy cells therefore reducing or eliminating toxicities.

History

1980s: Native (plain) Tumor Necrosis Factor (TNF) was given systemically with a maximum dose of 150mcg/m2, but Dose Limiting Toxicity (DLT) was noted:
- Severe hyperpyrexia
- Multi-organ system failure
- Death

1990s: TNF was revived for isolated limb perfusion therapy which also demonstrated remarkable anti-tumor effects with a response rate of 85% in combination therapy.

Recently, a new concept using TNF has developed. This involves attaching TNF to a “drug delivery” system to deliver the TNF to the targeted tumor tissue.

Pre-clinical Testing

TNF attached to a colloidal gold nanoparticle, the delivery mechanism, was named CYT-6091.

In pre-clinical testing, CYT-6091 has:
- Trafficked preferentially to tumor tissue
- Demonstrated anti-tumor effects
- Eliminated the DLTs noted above associated with native TNF

The results of the pre-clinical testing warranted further investigation in human subjects resulting in a Phase 1 clinical trial.

PURPOSE

Primary Objectives:
- Phase 1 dose-escalation trial evaluating the maximum tolerated dose (MTD) of TNF-bound colloidal gold (CYT-6091)
- Monitoring for adverse events and serious adverse events

Secondary Objectives:
- Disease response to CYT-6091
- Evaluating the trafficking of gold nanoparticles
  - Tumor tissue
  - Healthy tissue

METHODS AND ANALYSIS

Traditional Phase 1 Study

- Dose escalation in cohorts of 3-4 patients
- Dose levels ranging from 50-100mcg/m2
- Patients received 2 doses
  - 1st dose, day 1
  - 2nd dose, day 15
- Restaging 4 weeks after the 2nd dose

Drug Administration

- Patients were admitted to the intensive care unit for dosing and monitored
- Hydration of 1.25L at 100cC/hr started 2 hours prior to 4 hours after CYT-6091 administration

Control of the CYT-6091-induced Febrile Response by Pre-Treatment

- Personal Protective Equipment (PPE) required for Chemotherapy and Biotherapy precautions
- Administered through a central catheter
  - Single IV push over 20-30 seconds
- Flush afterwards with 25cc of NS
- Blood draws at specific intervals
- Labs drawn at 4 & 8 hours post injection
  - CBC with differential
  - Chemistry panel
  - Urinalysis
- Blood was drawn for pharmacokinetic studies (PK)
- Biopsies were taken 24 hours post CYT-6091 injection #1
- Tumor tissue
- Adjacent normal tissue
- Biopsies were evaluated for gold content using Electron Microscopy (EM)

Findings and Analysis

- Twenty-nine patients were dosed with CYT-6091
  - Eighteen males
  - Eighteen females
- Twenty-eight patients were evaluated for a response using the Response Evaluation Criteria in Solid Tumors (RECIST)
  - Two patients had stable disease
  - One patient had partial response

Adverse Events

- Adverse events were graded using the Common Terminology Criteria for Adverse Events (CTCAE) version 3.0
- Most common adverse events:
  - Lymphopenia
  - Electrolyte imbalances
  - "All adverse events were reversible within twenty-four hours after treatment"

Effect of CYT-6091 on Blood Pressure

No DLTs occurred indicating that TNF-bound colloidal gold, CYT-6091, is tolerated at a dose three times greater than native TNF

Electron Microscopy (EM):

- Gold nanoparticles were present in greater quantities in tumor tissue compared with normal adjacent tissue
- Demonstrated affinity of gold nanoparticles to tumor tissue

REFERENCES

All art courtesy of Larry Tamarkin, PhD, Cyimmune Sciences, Inc.
INTRODUCTION

Over the past three decades nursing workload assessment has become a highly discussed topic with the need for nurses to perform various patient care activities. Despite numerous methods and tools, measurement of nursing workload remains a challenge. A tool known as patient classification software has been used to calculate nursing workload. Workload can be measured using patient classification software to evaluate patient staffing needs. This study aimed to validate the patient classification software to calculate nursing workload.

RESULTS

Figures 1-4 show the mean time associated with the admission, transfer, discharge, and transfer-out activities across the inpatient units. The factors that contributed to the wide range of ADT activities included patient complexity, skill levels of nursing staff, and the workflow of the PCU.

The study was able to capture 30% of total PCU activity.

The sample size increased from 250 activities in April to 422 activities in July.

The number of total ADT activities was significant, with an average of 156 activities per unit with a range of 63 to 300 activities.

Figures 5 and 6 show the comparison of average time in minutes for admission, transfer, discharge, and transfer-out activities for April and July 2009. The time associated with admission and transfer-out activities increased by 10 and 17 minutes, respectively.

The time associated with admission and transfer-out activities decreased by 10 and 15 minutes, respectively.

Figures 7 and 8 show the difference in mean time associated with ADT activities on overall units and recommended staffing for ADT. The mean time for ADT activities was 25 minutes during the admission process with a range of 15-35 minutes.

The mean time for ADT activities was 12 minutes during the transfer-in process with a range of 1-5 minutes.

Figures 9 and 10 show the difference in mean time associated with ADT activities on overall units and recommended staffing for ADT. The mean time for ADT activities was 25 minutes during the admission process with a range of 15-35 minutes.

The mean time for ADT activities was 12 minutes during the transfer-in process with a range of 1-5 minutes.

CONCLUSION

There are several conclusions that can be drawn from the study. These include:

- The ADT time for admissions was consistent with the data from April. The transfer-in, transfer-out, and discharge were not consistent with the data from April. The sample size is small, therefore the validity of the data collected is limited.

- The time associated with ADT by the patient classification software is consistent with what is expected in the literature.

- Capturing the ADT time associated with the patient classification software is consistent with the ADT activities. However, it is important to ensure consistent data collection across the ADT.

- Workload associated with ADT activities significantly increased recommended staffing requirements and overall unit activity.

- The study also aims to evaluate the data based on the following parameters:
  - The time associated with ADT activities is based on patient classification software.
  - The time associated with ADT activities is based on clinical activity data, patient care data, and unit activity.

REFERENCES


Interplay of Patient Reported Sleep, Depression and Pain Among Adults with Sickle Cell Disease

Gwenyth R. Wallen, PhD, RN, Ellen Eckes, MSN, ARNP, FNP-BC, CCRN; Michael Krumlauf, RN, BSN; Mariana Hildesheim, MS, Darlene Allen, MT(ASCP); Jeffrey Schulten, MD; James G. Taylor VI, MD; Caterina P. Minniti, MD
National Institutes of Health (NIH), Bethesda, MD

BACKGROUND

- Sleep disturbance and depressive disorders are common among persons with sickle cell disease (SCD).
- Studies suggest a 28-44% prevalence of depressive disorders in adults with SCD.
- Depression and sleep disturbances have been associated with increased pain, greater distress from pain, lower quality of life, and poorer adherence to treatment regimens.

OBJECTIVES

- Explore the prevalence of depression and sleep disturbances in adult patients with SCD.
- Examine the relationships between pain (both episodic and chronic), depression and sleep disturbances in adults with SCD.

METHODS

- As part of an on-going pulmonary hypertension screening protocol, 136 adult patients with SCD were assessed for depression (BDI-II), sleep disturbance (PSQI), and self-reported pain (0-10 NRS) during a regular visit to the outpatient clinic.
- Separate chi-square analyses were conducted to assess associations between depression, sleep disturbance, and self-reported typical SCD pain intensity with episodic pain (n=58) as well as chronic pain intensity (n=83).

RESULTS

- Participants were 50% male with a mean age of 30 years.
- Thirty individuals (22.1%) reported depressive symptoms (BDI-II ≥17), and 102 (75%) reported global PSQI scores > 5 indicating either severe difficulties in at least 2 areas affecting sleep quality or moderate difficulties in more than three areas.
- For those who reported typical SCD pain intensity, no association was found between pain severity and either depressive symptoms or sleep disturbances.
- However, for those who reported whether or not they had chronic pain, a significant relationship was found between chronic pain severity and both depressive symptoms (p = .04), and sleep disturbances (p = .02).

IMPACTS

- A substantial proportion of participants in this sample reported symptoms consistent with depression and sleep disturbance.
- A positive, significant association was found between the severity of depressive symptoms, sleep disturbances and chronic pain scores.
- These findings suggest the need to assess for the presence and potential treatment of depression, sleep disturbances, acute pain, and chronic pain as important components of routine care for persons with SCD.
**Cellular Biology: Exploring Complementary Approaches to Atypical Cervical Cells**

**C.A. Leaver, L. St. John, F. H. Yuan, G. R. Wallen,**

**NINR, Bethesda, MD; Georgetown University Medical Center, Washington, DC; NIH Clinical Center, Bethesda, MD**

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**Background**

- **Sanguinaria canadensis (Canad pipec)***
  - Perennial herbaceous flowering plant native to the North American continent.

Sanguinaria is extracted from the roots of *Sanguinaria canadensis*.
- Demonstrates capacity as an antimicrobial, anti-inflammatory, and antioxidant properties.
- Associated with cell death and stimulation of apoptosis (Choi et al., 2009).
- Clinical case studies support a potential role for this compound in management of atypical cervical cells (Haddad, 1998).
- The efficacy of action and clinical outcomes are not clearly documented and require investigation.

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**Specific Aim**

The aim of this study is to investigate the effects of Sanguinaria canadensis on human foreskin keratinocyte primary cells (HFK), C3A, and HeLa immortalized cell lines.

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**Methods**

- HFK (normal cell control), C3A (atypical cancer), HPV negative, and HeLa (HPV+) were manually seeded into 6-well plates to 70-80% confluence.
- Cells were manually treated with serial dilutions of sanguinaria chloride (Sigma Chemical Co., St. Louis, MO, USA).
- Viability was determined by CellTiter-glo Luminescent Cell Viability Assay (Promega Corporation, Madison, WI, USA).
- Viable cells, as determined by CellTiter-glo luminescent assay, were then classified as apoptotic or necrotic.
- Initiator Caspase-2, -8, and -9 and effector Caspase -3, -6, and -7 activation was measured using Caspase-Glo Assays (Promega Corporation, Madison, WI, USA).

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**Results**

- **Sanguinaria canadensis induced a dose-dependent cell death of HFK primary cells, C3A, and HeLa immortalized cell lines.**

  - Microscopic plate inspection revealed morphologic signs of cell death including cell shrinkage, rounding up, and detachment from plate surface.

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**Conclusions**

- Sanguinaria chloride induce cell death in HFK, as well as C3A and HeLa.
- In C3A immortalized cell line, caspase 9 activation was unique with an increased expression of 2.0496 and 4.0812.
- Further investigation of apoptotic properties and signaling pathways for cell death are required.

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**Implications**

- This bench knowledge can be transferred to naturopathic knowledge base leading to a clearer path for integrating complementary modalities in the management of atypical cervical cells.
- To build on this bench research a Delphi study is underway to delineate a consensus for naturopathic management of cervical atypia.

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**References**

PREVALENCE OF SLEEP DISTURBANCES IN EARLY ALCOHOL RECOVERY IN AN INPATIENT SETTING
Clark, R., Whiting, B., Kramied, M., Todaro, A., Mira, L., Gwathmey, M., and Witen, G.
National Institutes of Health, Clinical Center, Bethesda, MD 20892

Background
Sleep disturbances among alcoholics are an area of interest to clinicians and researchers alike. Prolonged and heavy use of alcohol are associated with persistent sleep disturbances. Alcoholics frequently experience the following:
- Significant clinical, economic, and social consequences
- Prolonged sleep latency, decreased sleep time, decreased REM sleep, decreased sleep efficiency and difficulty maintaining sleep
- Early awakening and non-restorative sleep
- Sleep fragmentation which can persist 1-3 years after sobriety

Methods
- Participants enrolled in an inpatient alcohol treatment program completed the self-reported Epworth Sleepiness Scale (ESS) on day 5, Pittsburgh Sleep Quality Index (PSQI) on day 2, and daily sleep diaries.
- Actigraphy watches that track ambient light and motion as an objective measure to assess sleep and wake times were worn by participants throughout their inpatient stay.

Results
- This sample (n=41) was 50% male and ranged in age from 22 to 61 years (mean 31.3, SD 9.8).
- The mean Day 5 ESS score was 5.98 (SD = 4.92) indicating no excessive daytime sleepiness at baseline in our sample.
- The mean baseline PSQI score of 11.78 (SD = 4.04) indicated a prevalence of sleep disturbances over the month prior to admission.

Conclusions
- Participants were able to complete all self reports and tolerate wearing the actigraphy watches 24 hours daily.
- Significant sleep disturbance was reported by the majority of participants in the month before entering treatment.
- In this sample, participants did not report baseline excessive daytime sleepiness.
- During the first week of inpatient stay, participants report sleeping only 6.28 hours per night on average, less than the recommended 7.5 to 8 hours.

Implications for Research
- Ongoing analysis of sleep prevalence data may be a valuable tool for the development of customized sleep hygiene interventions in a similar future sample.
- Monitoring evidence shows that alcohol dependent patients with good progress sleep better than patients at risk for relapse.
- If sleep problems are related to relapse then treatment of sleep problems in alcoholic patients could potentially decrease relapse rates.
- Develop nurse led interventions focused on improving sleep quality in patients undergoing alcohol intoxication and treatment.

Future work will include:
- analyzing corresponding objective measures
- actigraphy and clinician progress notes, which may provide a more complete and accurate quantification of sleep quality and efficiency among alcoholics.

Objective
The purpose of this study is to examine the prevalence of sleep disturbances in patients undergoing inpatient alcohol treatment.

Study Design
- Descriptive, prospective, repeated measures design.
- Adult research participants (n=41) admitted to the inpatient behavioral health unit and enrolled onto protocol S6-A4-0311 Assessment and Treatment of People with Alcohol Drinking Problems.

References

Acknowledgements
"The worst thing in the world is to try to sleep and not to." - F. Scott Fitzgerald

Discover America's Research Hospital, The NH Clinical Center

Table 1: Sample Characteristics

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"The worst thing in the world is to try to sleep and not to." - F. Scott Fitzgerald
Font styles:

- Arial
- Helvetica
- Verdana
- Times or Times Roman
- Garamond
- Georgia
- Franklin Gothic
- Tahoma
Font sizes (guidelines):

- Title - at least 60pt, title case
- Subtitle – smaller than title
- Section headings - 48 point
- Main text – 24 point (no smaller than 14-18pt)
- Text for labeling – 20 point
• Are the major and most relevant points communicated?

• Is the information well organized?

• Is the information legible from 4 to 6 feet away?

• Can the viewer absorb the information within 3 to 5 minutes?

• Are there any typographical errors?

• How does the poster look?
POSTER HINTS

- Follow guidelines
- Set up as soon as possible, earlier is better
- Legible, concise
- Avoid cramming
  - Avoid too much text and graphics
MORE POSTER HINTS

- Acknowledgements
- Transport using tube or cover poster with brown paper
- Dress professionally
- Bring tape, push pins with you
During

- Stand by (but not in front of) poster during designated times. Be early.
- Make believe you are a host/hostess
- Don’t ignore people
- Provide reprints of poster (8.5 x11) or other pertinent handouts
- Include contact information at the bottom of the poster and bring business cards if you have some available
AFTER PRESENTATION

• Evaluate how you think the presentation went and jot down notes for next time.

• Check out other posters being exhibited.

• Relax - it’s done!! Celebrate!!!
INCREASE YOUR ODDS BY USING THE CHECKLISTS!!
POSTER CHECKLIST

- Are all the necessary components included?
- Does the color scheme enhance the poster?
- Is the poster clear and easy to read?
- Have you followed the guidelines provided?
POSTER PRESENTATION CHECKLIST

- Have you allowed enough time?
- Are brochures handouts ready?
- Do you have thumbtacks, tape, glue?
**RESOURCES**

- Creating Scientific Posters, The Handout, Centers for Disease Control and Prevention.
- Shelledy DC. How to Make an Effective Poster, Respiratory Care, October 2004, 49(10):1213-1216
- Hess G., Tosney K., Liegel L. Creating Effective Poster Presentations. [http://www.ncsu.edu/project/posters](http://www.ncsu.edu/project/posters)

Additional Resources:
- [http://writing.colostate.edu/guides/speaking/poster/index.cfm](http://writing.colostate.edu/guides/speaking/poster/index.cfm)

**Resource Reach sub-committee for NPAC is developing some suggested guidelines for poster presentations that will be available in the next couple months.**
Thank you