

Medications for Youth Programs: Mitigating the Risk



Michael Ambrose, M.D.

November 2022



Background

- Attended the University of Michigan Medical School and board-certified in pediatrics
- Currently practicing in a pediatric clinic in Ann Arbor, Michigan
- Published multiple camp health research studies through the American Academy of Pediatrics the World Association for Disaster and Emergency Medicine, the Society of Academic Emergency Medicine, and Pediatric Academic Societies
- Lead author of the American Academy of Pediatrics (AAP) national policy statement on *Improving Health and Safety at Camp*
- Founder of CampDoc and SchoolDoc, an Electronic Health Record (EHR) software company for camps and schools



Workshop Key Takeaways

- Gain increased awareness for common medications at camp.
- Improve your understanding of best practices for medication administration at camp.
- Review the current recommendations from the AAP, ACA, and ACH regarding medication administration at camp.
- Understand how an Electronic Medication Administration Record (eMAR) can help avoid dangerous medication errors.



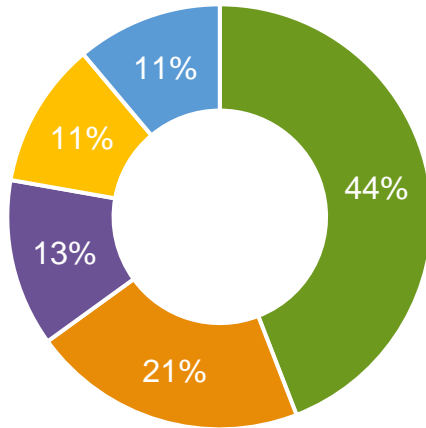
Medication Error Statistics

Medication Errors

200,000+ / Year (30% Children)

Frequency

1 child every 8 minutes







- Inadvertently took/given medication twice
- Confused units of measure
- Wrong medication taken/given
- Medication doses given/taken too close together
- Inadvertently took/given someone else's medication



2017 ACA Emerging Issues Survey

#1 ISSUE FOR CAMPS

HEALTH AND SAFETY

- **Mental, Emotional, and Social Health (MESH)**
Staff and campers are dealing with MESH issues (e.g., depression, anxiety, and eating disorders). About 71% of camps say MESH is an issue.
- **Medical Needs**
Staff and campers have unique medical needs (medications, allergies, etc) that need close monitoring. About 45% of camps have issues with managing these unique needs.
- **Security and Intruders**
Camps (42%) are more concerned with trespassers, intruders, and strangers.
- **Emergency Protocols**
Camps are increasingly concerned about protocols for emergencies (e.g., active shooter, wild fires, and wild animals). About 18% of camps have issues preparing for weather-related emergencies.

Resources to check out:

- "MESH Proactive Camps: What are their secrets?"
- "Medication Management"
- "Emergency Preparedness"

Check resource



AAP Improving Health and Safety at Camp

- Medications should be sent to camp before the camper arrives.
- Relying on handwritten instructions when administering medications can lead to medication errors.
- The use of an Electronic Medication Administration Record (eMAR) is encouraged to minimize the potential for human error.

POLICY STATEMENT Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

Improving Health and Safety at Camp

Michael J. Ambrose, MD, FAAP; Edward A. Walton, MD, FAAP; COUNCIL ON SCHOOL HEALTH

abstract

The American Academy of Pediatrics has created recommendations for health appraisal and preparation of young people before participation in day, resident, or family camps and to guide health and safety practices at camp. These recommendations are intended for parents and families, primary health care providers, and camp administration and health center staff. Although camps have diverse environments, there are general guidelines that apply to all situations and specific recommendations that are appropriate under special conditions. This policy statement has been reviewed and is supported by the American Camp Association and Association of Camp Nursing.

BENEFITS OF THE CAMP EXPERIENCE



For more than 150 years, children have been attending camp.¹ Today, more than 14 000 day and resident camps exist in the United States, and approximately 14 million children attend day or resident camp supported by 1.5 million staff members.² When there is a successful match between a camp's philosophy, practices, and methods and a child's developmental, experiential, and temperamental readiness, abilities, and nature, the camp experience has been proven to have a lasting effect on psychosocial

*St Joseph Mercy Hospital, Ann Arbor, Michigan; and †Ascension St John Hospital, Detroit, Michigan

Dr Ambrose conceptualized and designed the initial manuscript and revised the final manuscript. Dr Walton conceptualized and designed the initial manuscript.

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Medication Management



Medications

What is a medication? What about OTCs, vitamins or supplements?

- Define “medication” for your camp
- Follow the directions of a licensed prescriber
- Considerations for OTCs, vitamins and supplements

HW.7 Health Information Review and Screening for Day Camp and Short-Term Camp

The camp should designate staff to review campers’ health information within 24 hours of first arrival and collect any medication to be given.



Medication Storage

How should camper medications be stored? What about staff?

- Medications should be stored in their original containers
- All prescription and over-the-counter medications for campers and staff must be stored under lock

HW.13 Medication Storage and Administration

All drugs (Rx and OTC) for campers and staff must be stored under lock and, for prescription medications, given under the directions of a licensed provider or, for OTC medications, per the camp's written procedures or signed instructions from a parent/guardian.



Controlled Substances

Are the rules different for controlled substance medications?

- Treat all medications, their storage, and their administration with the same care.
- Many states require that camps track the counts of controlled substance medications with greater care.
- Every time you administer a controlled substance medication, you should update the quantity accordingly.



Medication Administration

Do I need a licensed healthcare professional to dispense medications?

- Follow the “five rights” of medication administration – right patient, right drug, right dose, right time and right route.
- Many camps train staff members as Unlicensed Assistive Personnel (UAP) to help with medication administration and tasks as delegated by the camp nurse.



Documentation

What do I need to document after I give a medication?

- Always document who gave the medication and the day and time it was given.
- Using an Electronic Medication Administration Record (eMAR) can help with documentation.



ACA + CampDoc + ACN Research



CampDoc



2019 Camp Medication Data

Camps

870

Campers

75,072

Male

42%

Female

57%

Age Range

5-9 (15%)

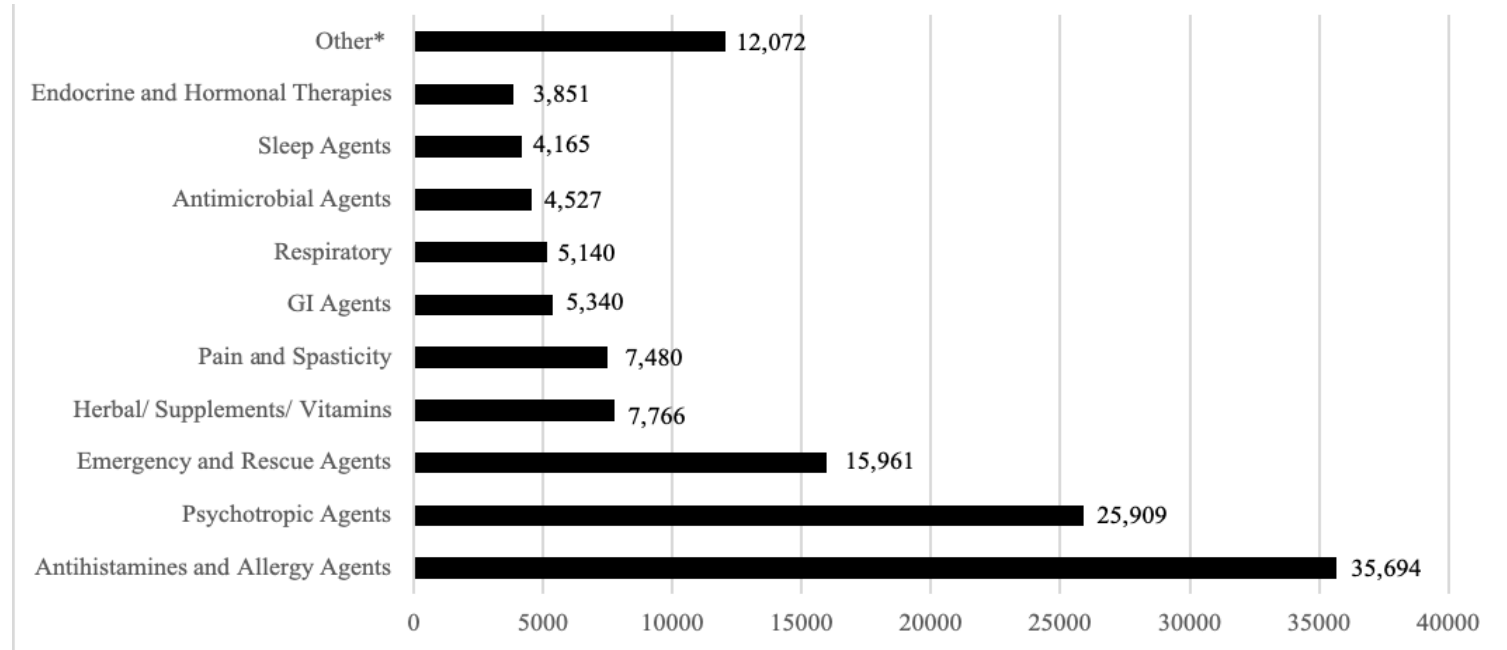
10-12 (36%)

13-17 (49%)

Preliminary analysis was performed on 127,905 of 164,005 (78%) of medication entries



Top 10 Categories of Medications at Camp



*Other includes the following categories: Non-Emergency Neurologic; Dermatologic; Cardiovascular; Urologic; Heme and Factor Products; Cough and Cold; Ophthalmologic; Immunosuppressants; ENT; Biologics; Renal; Oral Preps and Mouthwashes; Antineoplastic and Musculoskeletal Agents.



Antihistamines/Allergy (28%)

- Do you know the indication for the medication?
- Are there specific conditions when a camper can request their PRN medication?
- Does this medication have to be given at a specific time of day?



Psychotropic (20%)

- Does the medical history provided on the camper's health form correspond to the medication being administered?
- Do you know if there were any recent dose changes? Are there any drug holidays for similar medications?
- Does the camper have a history of refusing this medication? What is the protocol if they refuse?



Emergency/Rescue (13%)

- Are your camp staff trained to recognize the situations that may require these medications?
- Are your campers and staff trained in the use of these medications?
- Are campers allowed to and reliable to carry or administer the medication themselves?
- Are these medications kept in locations that are easily accessible to those who may need them?



Herbal Supplements/Vitamins (6%)

- Do you have an order from a licensed healthcare provider to administer this medication?
- Do you know the side effects from these medications?
- Did the parent/guardian list an indication for these medications?
- Are there any local laws that would prohibit you from administering these medications?



Medical Devices



Electronic Medication Administration



Michael Ambrose

Sarah Abbott

Registration

Prescreening

Health Profile

Account

Protection Plan

CampGrams

Custom Labels

Trusted Contacts

+ NEW PARTICIPANT

* Medication Name ?

Clari
Clarinet
Clarinet-D 12 Hour
Clarinet-D 24 Hour
Clarithromycin
Claritin
Claritin-D

* Strength ?

10 mg capsule

* Dose Quantity ?

1

* Dose Form ?

Tablet(s)

* Frequency ?

Daily

Times Given ?

Breakfast Lunch Dinner Bedtime
 As Needed

* Dates to Give ?

Continuously

* Why does Sarah take this medication? ?

Seasonal allergies

PREVIOUS STEP

20% Complete

NEXT STEP



Sarah Abbott

Feb 6, 2005

- Participant Information
- Member Information
- Camper Information
- Emergency Contacts
- Diet & Activity
- Allergies
- Medications

- OTC Medications
- Immunizations

- Health History
- Insurance
- Healthcare Providers

- Physician Form
- Authorization

Medical Test

DATES

Due: June 17, 2022
Lockout: June 24, 2022

CONTACT

Leroy Jenkins
098098098098
leroy@jenkins.edu

PRINT



Michael Ambrose

Sarah Abbott

[Registration](#)[Prescreening](#)**Health Profile**[Account](#)[Protection Plan](#)[CampGrams](#)[Custom Labels](#)[Trusted Contacts](#)[+ NEW PARTICIPANT](#)

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[Terms of Use](#)**OTC Medications****OTC Medications**

* Acetaminophen (Tylenol)

 Yes No

* Aloe

 Yes No

* Antibiotic Ointment (Bacitracin, Neosporin)

 Yes No

* Bismuth Subsalicylate (Pepto-Bismol, Kaopectate)

 Yes No

* Calamine Lotion

 Yes No

* Calcium Carbonate (Tums, Rolaids)

 Yes No

* Cetirizine (Zyrtec)

 Yes No

* Cough Drops

 Yes No

* Diphenhydramine (Benadryl)

[PREVIOUS STEP](#)

26% Complete / Last saved a few seconds ago

[NEXT STEP](#)**Sarah Abbott**

Feb 6, 2005

- Participant Information
- Member Information
- Camper Information
- Emergency Contacts
- ✓ Diet & Activity
- Allergies
- Medications
- ✓ OTC Medications
- ✓ Immunizations
- Health History
- Insurance
- Healthcare Providers
- Physician Form
- Authorization
- ✓ Medical Test

DATES

Due: June 17, 2022**Lockout:** June 24, 2022

Profiles

Profiles & Reports

Create Profile

Groups

Finances

Protection Plan

Medical Supplies

Health Log

Prescreening

eMAR

CampGrams

Attendance

Settings

Setup

Data Import

Search profiles by name

Select All | Select None

- About, Jordan
Feb 6, 2005
- Adams, John 26%
Feb 6, 2005
- Allen, Michael 0%
Jun 17, 1994
- Ambrose, Michael
Jan 1, 2005
- Appier, Shandi
Jan 3, 2016
- Appleseed, Johnny
Nov 1, 2007
- Banfield, Thomas
- Bennett, Jack 6%
Apr 24, 2003
- Berti, Eric
- Brase, Jason 14%
May 1, 2016
- Burnett, Carol
Feb 4, 1993



Susie Alston 

May 31, 2008 (Age 13) • Female  EDIT

14% Complete / \$1,040.00 Balance

Registrations Tags Account Users Notifications Health Profile Medications Health Log CampGrams

MEDICATIONS OTCS EMAR

Adderall

1 x 5 mg tablet (capsule)

ADMIN AT CAMP 

Yes

EMERGENCY MED 


No

SELF ADMINISTER 

No

HIDE FROM EMAR 

No

TRACKING QUANTITY 

Yes

SCHEDULE

Breakfast

START

None Listed

FINISH

None Listed

FREQUENCY

Daily

INTERVAL

1 day

NEXT ADMINISTRATION

Dec 29, 2020

INDICATION

ADHD

SPECIAL INSTRUCTIONS

None Listed

SIDE EFFECTS

None Listed

TRACK QUANTITY

In Stock: **[30]** × 5 mg tablet (capsule)

Quantity

× 5 mg tablet (capsule)

Date

Notes

FILL

FILL DATE

QUANTITY

INITIALS

NOTES

Jun 10, 2022

30














MA

Rx 123ABC

BACK



DEACTIVATE





EDIT MEDICATION

-  Profiles
-  Groups
-  Finances
-  Protection Plan
-  Medical Supplies
-  Health Log
-  Prescreening
-  eMAR
-  CampGrams
-  Attendance
-  Settings
-  Setup
-  Data Import




Search by name or medication

16 Medications for **Breakfast** on **Feb 10, 2022**  

Missing from earlier today: [Early Morning](#), [Overnight](#)
 Download missing entries for today: 
 Previously missed entries:  [Feb 7](#),  [Feb 8](#),  [Feb 9](#)



Alston, Susie 
 5/31/2008 • Female

48 in / 48 lbs

ALLERGIES

- Dairy

REGISTRATIONS

- Session 2 » Frontier
- Camp Voyager » After School Programs

Adderall at Breakfast
 1 × 5 mg tablet (capsule)

SCHEDULE: Breakfast
 DAYS: Mon, Tue, Wed, Thu, Fri, Sat, Sun
 DATES: Continuous
 INDICATION: ADHD

Note Templates

Note Templates

Note

- Not Given Pending Specify Time Error



SAVE



Alvarez, James
 10/24/2007 • Male

Claritin at Breakfast 
 1 × 5 mg tablet, orally disintegrating (capful)



GIVE



Anderson, Tanya
 11/08/1998 • Female

Abilify at Breakfast
 1 × 15 mg tablet (capsule)



GIVE



Anderson, Teresa 
 11/11/2007 • Female

Zyrtec at Breakfast
 1 × 10 mg tablet



GIVE



Chavez, Carole 
 1/01/1998 • Female

Allegra at Breakfast
 1 × 6 mg/mL suspension (capful)



GIVE

← Today →

Feb 10 2022

Breakfast (16)

Load Filter

Groups

Tags

SAVE FILTER

DELETE FILTER

Previous Entries

'As Needed'

BULK ENTRY

HISTORY

Medication Summary



Camp Maple

Filters Applied: Registration Type is Participant, Profile Status isn't Past, Medications has Medications

Requested By: Michael Ambrose

Created: Feb 13, 2020 at 8:58am (EST)

Overnight

♣ Aleman, Alan May 22, 1998 ○ Anders, John Jul 29, 2003

Breakfast

♣ Adam, Lisa Mar 28, 1993
♣ Adams, Mary Jul 10, 2005
♣ Aleman, Alan May 22, 1998
♣ Allen, Christina Jan 19, 2005
♣ Anchondo, Marvin Dec 23, 1993
♣ Arnett, Richard Sep 28, 1999
♣ Balsamo, Darren Feb 15, 2002
♣ Bateman, James Mar 23, 2005
♣ Bryant, Arthur Dec 7, 2004
♣ Christmas, Jeffery Nov 24, 2007
♣ Enright, Patricia Feb 23, 2004
♣ Goodwin, Vivian Apr 7, 1996
♣ Meyer, Alice Jul 17, 2003
♣ Smith, Suzanne Aug 28, 1998
♣ Zimmer, Bert Oct 29, 2001
♣ Adams, Eric Jun 17, 1988
♣ Aguilar, Chase Mar 10, 2005
♣ Allen, Adele Jan 19, 1997
♣ Amar, Joel Nov 1, 2007
○ Anders, John Jul 29, 2003
♣ Ashley, Rebekah May 23, 1998
♣ Barco, Matthew Dec 11, 1998
♣ Bluth, George Apr 5, 2006
♣ Bryant, Kimberly Aug 21, 1997
♣ Dunn, Matthew Nov 9, 2002
♣ Feist, Johnathan Nov 1, 2000
○ Hudson, Decker Oct 28, 2013
♣ Rhodes, Cynthia
♣ Stowd, S

Late Morning

○ Anders, John Jul 29, 2003 ♣ Baker, Eliza

Lunch

♣ Allard, Allyson Jul 27, 1993
♣ Ang, Steve Nov 15, 2005
♣ Anderson, F
♣ Ashley, Rel
♣ Carson, Al



THANKS!



Questions?

michael@campdoc.com

734-619-8302

