

Using Google Services as an Innovative Educational Tool for Advanced Pharmacy Practice Experience Rotations

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Background

- Pharmacists often serve as preceptors for multiple residents and/or students annually.
- At the beginning of each rotation, preceptors should orient trainees to the practice site and discuss the requirements, expectations, and schedule of learning activities.¹
- Paper and electronic materials are often shared with the trainees during orientation and throughout their rotation.
- Due to conflicts and a dynamic environment, updates to the rotation schedule are often needed throughout the rotation.
- Trainees and preceptors may be challenged with organizing and tracking the electronic communications and files shared during the rotation, which may result in different expectations due to confusion and poor understanding.
- Another challenge is providing consistent expectations when trainees may work with one or more pharmacy faculty or practitioners during a rotation.

Objective

- To describe how Google Inc. "Google" services can be used for coordination of pharmacy resident and/or student patient care rotation requirements and activities.

Methods

- Preceptors for residents and students who were completing an inpatient cardiology rotation aimed to develop a centralized repository for rotation-related materials.
- Google Drive was used to share electronic materials with the pharmacy residents and students.
- Google Calendar was used to create a rotation calendar including various scheduled meetings with times and locations and deadlines for completing rotation assignments.
- The calendar was developed by preceptors prior to the beginning of each rotation block and shared with students and residents on rotation.
- While on clinical service, preceptors shared any conflicts with the trainees and provided contact information for the other preceptor covering the service on that date or during a specific time.
- The students and residents were asked to add any obligations (e.g. clinic, teaching) or vacation that would occur during the rotation to the Google Calendar (Figure 1).
- The rotation calendar was updated as needed throughout the course of the rotation.

Methods (continued)

- Google Drive was used as a repository for the following (Figure 2):
 - Rotation syllabus
 - Rotation survival tips
 - Presentation guides (e.g. journal clubs, topic discussions, and case presentations)
 - Various required readings
- In Google Drive, the preceptors created various folders that included readings related to the disease states and medications encountered on the rotation.
 - These folders were updated when appropriate.
 - Students and residents are asked to add additional and useful readings and handouts to the medication and disease state folder during their rotation.

Figure 1. Example of Rotation Schedule (One Week Block)

Google Calendar		
Tue Sep 25, 2012	9:00am – 1:00pm 2:00pm – 4:00pm	Patient Rounds: Kristin Resident Topic Discussion: VTE - PH S410
Wed Sep 26, 2012	9:00am – 1:00pm	Patient Rounds: Kristin
Thu Sep 27, 2012	2:00pm – 4:00pm 4:00pm – 5:00pm	Patient case discussion PT rounds - N 211
Fri Sep 28, 2012	9:00am – 1:00pm 1:00pm – 4:00pm	Patient Rounds: Sandeep Project time
Mon Oct 1, 2012	9:00am – 1:00pm	Patient Rounds: Watson
Tue Oct 2, 2012	9:00am – 1:00pm 1:00pm – 4:00pm	Patient Rounds: Watson Preparation for topic discussion
Wed Oct 3, 2012	8:00am – 9:00am 9:00am – 1:00pm 2:00pm – 4:00pm 4:00pm – 5:00pm	Jhu/um topic discussion articles to follow - S447 Patient Rounds: Watson Resident Topic Discussion: Hypertensive Crisis PT rounds - N 211
Thu Oct 4, 2012	9:00am – 1:00pm 12:30pm – 1:30pm 2:30pm – 4:30pm	Patient Rounds: Watson case conference Student journal club presentations
Fri Oct 5, 2012	9:00am – 1:00pm	Patient Rounds: Watson

Figure 2. Example of Shared Electronic Resources

Google Drive	
CREATE	My Drive Key Articles in Cardiology
	TITLE
My Drive	Heart Failure Clinic shared
Acute Coronary Syndromes	ACS 2004.pdf shared
Acute Heart Failure	ACS.PCI.pdf shared
Anticoagulation	arrhythmia.pdf shared
Chronic HF managment	HTN.pdf shared
Dabigatran	key_article_HTN_update.pdf shared
Drugs	Lipids.pdf shared
General Cardiology Readings	
Heart Failure Clinic	
Herbals	
Key Articles in Cardiology	
Radial artery spasm	
Reviewing Journal Articles	
Shared with me	
Starred	
Recent	
More -	

Results

- By posting readings (e.g., guidelines and articles) and templates for assignments in a central database such as Google Drive, preceptors ensured that students had clear expectations for assigned activities like preparation for topic discussions.
- Preceptors, students, and residents were also able to access posted documents and calendars readily on any computer or mobile device.
- Trainees were able to contribute to future learning experiences by posting copies of handouts and readings that could be beneficial to others completing the same rotation.
- Use of Google Drive as a communication tool minimized the amount of emails that needed to be sent to trainees during the course of the rotation.
- Use of Google Calendar offered flexibility in syncing various calendars and allowed for real-time schedule updates.

Conclusions

- Using various Google programs provided a central repository of information for preceptors and their students and residents on rotations.
- The preceptors felt that use of this type of technology saved a significant amount of time spent on correspondence, and the trainees understood the expectations for rotation activities more clearly.
- Preceptors can use Google Drive or similar data repository to house and share rotation syllabi, learning descriptions, rotation readings and other electronic materials for students and residents completing any type of rotation.
- Preceptors can use electronic resources to share information when collaborating on research and projects with students and residents. This can also be used for trainees to upload assignments for preceptors to review, edit, and/or grade.

References

- ASHP Accreditation Standard Available for Post Graduate Year One Pharmacy Residency Programs Available from: <http://www.ashp.org/DocLibrary/Accreditation/ASD-PGY1-Standard.aspx>

Notes

- The authors have nothing to disclose.