

# PAK Study Manual

Group and Health Risk Mitigation (GHRM) Exam  
Fall 2023 Edition





## **PAK STUDY MANUAL** **(Printed Copy Available)**

### **1. Summary \***

The PAK Study Manual covers the entire Group and Health Risk Mitigation (GHRM) syllabus. Not only does it give you the detailed explanations on conceptual, calculation, and exam materials, but it also fills in the gaps among the topics that are not covered in the source readings. It helps you better understand and master the confusing logics and difficult materials.

In addition, it links the similar topics across readings together and connects them to the syllabus so that you can see the whole picture of this exam.

### **2. Relevant Past GHRM (GHS) SOA Exam Questions (List)**

For each reading, we compose a list of relevant past exam questions (if any) so that you can locate the questions quickly and practice them immediately. This saves your time on searching what materials are relevant to this exam.

### **3. Practice Questions**

One key point to pass this exam is to "practice" (Practice makes perfect!). Due to this reason, we include many practice questions at the end of each reading to refresh the materials just learnt and to strengthen your knowledge.

### **4. Mock Exam Questions\***

The mock exam questions mimic the same difficulty level of the real exam questions. 10 mock exam questions and solutions are included in the PAK Study Manual to challenge your understandings.

### **5. Suggested Study Schedule (Detailed)**

The syllabus is huge. It is very easy to lose track on your study. A clearly defined study schedule and some useful tips are included to help you better manage your schedule.

### **6. Email Support**

Get questions? Please send me an email

#### **NOTE**

1. The printed copy of the manual includes the items with asterisk.

*“The materials provided through the PAK Study Package provided a simplified and efficient approach to understanding the material for this exam.” By Cameron Cole*

**[Read the whole story](#)**

## **DO YOU KNOW?**

The PAK Study Manual and related aids are updated EVERY exam sitting.

You will see the most updated materials, examples, and explanations to help you master the concepts and pass this exam in the first attempt.

## **PAK FLASH CARDS** **(Printed Copy Available)**

### **1. Electronic Flash Cards**

- ◇ Summarize the key points (with mnemonics) (PDF version is also available)
- ◇ Work best for any big-screen cellular phone or mp3 player (e.g. iPhone, HTC, Android, Nook, etc)

### **2. Bonus: Anki Flash Cards**

- ◇ The purpose of the PAK Anki Flash Cards is to strengthen your memory on the materials in the syllabus. You can save them into your PC or Anki app and read them anytime and anywhere you want (e.g. in gym, in train, etc).

### **3. Bonus: Electronic Condensed Summary**

- ◇ Summarize the key points in outline format
- ◇ Quickly refresh all the important topics in the readings

## PRODUCT FEATURES

Purposes	Features	PAK Study Manual	PAK Flash Cards
Study	Summaries	5/31	
Study	Relevant Past Questions (List)	5/31	
Study	Practice Questions	5/31	
Study	Mock Questions	5/31	
Study	Suggested Schedule (Detailed)	5/31	
Study	Email Support	Anytime	
Review	Electronic Flash Cards		5/31
Review	Anki Flash Cards		5/31
Review	Condensed Summary		5/31

*“PAK is the best study aid I've ever used .” By Mavis Shang - Toronto*

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## SAMPLES?

You can find more samples on the [PAK](#) website.

## IMPORTANT NOTES

1. Please note that all products are in electronic (PDF) format. **No** hard copy is provided.
2. Once you make a purchase (please use your work email address), we will send you a confirmation email within 1 business days Once the files are available, we will send them to you through email. Please make sure that you put the correct email address when you purchase the PAK products. **If you do not receive the confirmation email, please send us an email ([services@pakstudymanual.com](mailto:services@pakstudymanual.com)).**
3. Please check your “junk” mailbox. Sometimes, our email is blocked.

## WHERE TO PURCHASE PAK PRODUCTS

The PAK products are available at [Actex](#), and [Actuarial Bookstore](#).

## MORE INFORMATION

Please contact us at [francisjung@pakstudymanual.com](mailto:francisjung@pakstudymanual.com), [timagnuson@pakstudymanual.com](mailto:timagnuson@pakstudymanual.com), or visit [www.pakstudymanual.com](http://www.pakstudymanual.com).

**Textbook Reading: Managing and Evaluating Health Care Intervention Program Ch. 3** (by Ian Duncan)**Key points****Key Points in This Reading**

1. Able to describe, compare and evaluate programs
- 2) Understand the 13 different programs design

**Chapter 3 - Care Management Programs and Interventions****Introduction**

- Traditional insurance model (i.e. underwriting and pricing) failed to contain costs and was replaced by a more interventionist/managed care model
- This managed care model has more influence and control on the kind of resource that can be provided
- As costs began to increase, health plans and other payers became interested in methods of managing care, rather than simply managing costs
- When managed care method applies to patients, it is called **Interventions**
- **Care management** - control utilization of services from their members, while also focus on prevention of illness and improving the quality of care delivered.

**NOTE:** The rest of this chapter will talk about the 13 different care management programs. The source did not address each program equally in length. The length of each individual program in this study note will approximately reflect the weight of the material in the source.

**#1: Pre-authorization**

- Required healthcare provider to obtain approval from a Managed Care Organization (MCO) before performing healthcare-related procedure on health plan member
- MCOs determined the procedures that required authorization based on the price, volume, or total dollar expenditures on procedures.
- One benefit is the pre-authorization reviews on both the economic reasons and patient safety / quality
  - o Physician might perform procedures where the patient might not be needed.

**#2: Concurrent Review**

- Evaluate the patient's care while the person is in hospital or nursing home
- Due to the complexity of healthcare, the review is done by **hospitalist** - a physician located in hospital who coordinate the different disciplines (because he has more general knowledge of healthcare.) to an individual patient
- Reduce hospitals' average length of stay.

**#3: Case Management**

- Case manager (e.g. nursing professional) who coordinates the care of a patient with a serious disease or illness (i.e. need multiple medical specialties treatment)
- Case manager has the authority to approve extra-contractual benefits that might be out of what the plans cover
- Ensure services/treatments are actually improving patient condition.
- Case manager might not reduce cost for the MCO since he wants the patient to be under effective yet costly treatment

**#4: Demand Management**

- Some forms of information interventions provided by clinical staff over the telephone.
- The key objective is to determine if the medical condition requires immediate intervention
  - o Usually for acute, non-chronic illnesses
- Creates the process of information collection and might linked back to patients' primary care physicians

**#5: Disease Management (DM)**

- DM is a system of coordinated health care interventions and communications for populations with conditions in which patient self-care efforts are significant
  - o Usually for a specific disease
  - o Usually offered telephonically by nursing professional
- Common characteristics that make DM suitable for clinical intervention
  - o The disease remains with the patients for the rest of their life
  - o The disease is manageable with drugs and lifestyle change
  - o The cost of chronic patients is very high so it justifies the expenditure of resources to manage the condition
  - o The expected cost of the non-adherent (not continue treatment) patient is high
- **Key point** - If the disease costs are self-manageable, the higher the expenditure, the greater saving opportunity for a DM intervention
  - o In US, the DM is outsourced as a telephone survey by a third-party
  - o Financially attractive when large number of patients
- Successful DM requires strong outreach efforts to contact patients, generates enrollment, and changes patient's behavior (remember, saving from chronic disease cost come from self-management)
  - o Can't solely rely on the Internet
- Issue with measuring the effectiveness of DM
  - o No consistent definition for chronic disease (some patients could be double/triple counted)
  - o Different studies could have different result based on the sample
- Population Health model - all the diseases a patient has are managed by a single program
  - o More difficult to be assessed financially when DM is moving away from a more focused program.

**#6: Specialty Case Management**

- Care manager who specializes in a particular area
- MCO assigns primary responsibility to this care manager for coordinating patient's care.
- MCO contracts intervention to private company with both service and financial responsibility
- Relies on tools such as concurrent review, case management, and disease management from above.

**#7: Population Health Management**

- Focus on a board set of conditions (i.e. not specific disease, unlike DM)
- Entire membership of a health plan is evaluated using **statistical tools**
- Statistical tools help to identify potential high-cost patients so softer intervention can be applied
- Relies heavily on information/data

**#8: The Patient Centered Medical Home (PCHM) and Pay for Performance (P4P)**

- Pay for Performance - the program sponsor will pay the physician a bonus if some clinical measures have been met or exceeded.

**NOTE:** I would pay more attention to the PCHM because it has more weight on this section in the source material

- PCHM - Place the responsibility for the patient's care to the physician while create a central location for medical record and any type of special health care needs.

**7 Principles for Establishing the Patient-Centered Medical Home**

1. Each patient has an ongoing relationship with a **personal physician** trained to provide care from start to finish
2. **Physician directed medical practice** - a team of individuals taking responsibility for the patient's ongoing care
3. **Whole person orientation** - appropriately arranging care with other qualified professionals for all stages of life (acute care, chronic care, preventive services, and end of life care).

4. **Care coordinated and integrated** across all elements of the health care system and the patient's community. Facilitated by registries, IT, and health information exchange.
5. **Quality and safety** – patient-centered outcomes, evidence-based medicine, clinical decision-support tools, performance measurement, Continuous Quality Improvement patient expectation measurement
6. **Enhanced access** - open scheduling, expanded hours, E-visits and other options
7. **Reimbursement structure** to support and encourage this model of care

**NOTE:** The source does not explain any further for the list above and below. However, since they are listed in the source, they might catch exam writers' attentions

#### Medical Homes Standard from NCQA

1. Access and Communication.
2. Patient Tracking and Registry.
3. Care Management.
4. Patient Self-management Support
5. Electronic Prescribing
6. Test Tracking
7. Referral Tracking
8. Performance Reporting and Improvement
9. Advanced Electronic Communications

- Based on the list above, it requires significant investments to operate a medical home
- No significant evidence on the model's effectiveness at achieving both higher quality and lower cost of care.

#### **#9: Accountable Care Organizations**

- Provider is accountable for providing quality care, reducing utilization, and convincing the patient not to seek care outside the ACO network
- Strong tie to the patient's physician

#### 3 Disadvantages When Compared to Traditional DM

1. Without the right infrastructure and experience from trial and error from DM
2. Diseconomies of scale
3. Not enough bandwidth to manage all the needs from physician alone

#### What Makes DM Successful (this is where ACO lacks)

1. Have to employ high quality data analytics
2. Emphasize on electronic medical health record
3. Economical (i.e. profitable)
4. Need to have good planning and understanding the opportunities

#### Structure and Organization of ACOs

**NOTE:** Think of what kind of models, the requirements and how to generate savings for ACO. An understanding of these points can enable student to CRITIQUE an ACO programs for their cost saving

- **2 models** of gain sharing for the Medicare ACO (aka Medicare Shared Savings Program, or MSSP)
  - o One sided: the ACO and CMS (Center for Medicare and Medicaid Service) share 50/50 in any gains
  - o Two sided: the ACO shares more of the gains, but is at risk for any losses
- **2 requirements** before ACOs can share saving with CMS
  1. At 1st year, ACOS must be able to report on 33 quality metrics; at later years, ACO has to meet actual care qualify target
  2. Must surpass a saving hurdle rate between 2% to 4%

- The physicians that “control the pen” can influence and manage cost
- Strong incentives for ACO to build a referral network to ensure that patients are using high-quality, low-utilization providers who have access to the patients’ data.
- **4 ways** to generate savings for provider group-based ACO
  1. The practice will implement “care coordination” to manage the care of the patients who need additional services
  2. Access to integrated medical records and consistent management by the physician will reduce the need for tests
  3. The ACO will develop a network of efficient providers for referrals and will limit the use of less efficient and more expensive providers
  4. The focus on quality will also result in fewer unnecessary services and by emphasizing preventive services, lead to later saving as population health is improved.

### **#10: Non-Traditional Providers and Care Setting**

- There are shortages of primary care physician
- More patients use higher cost providers (e.g. emergency room)
- This creates an opportunity for non-traditional providers

### **Pharmacist**

- Reasons why they are appealing as alternative
  - o Went through good overall **clinical training**
  - o **Location** allows them to be interact frequently with patients (i.e. retail pharmacies)
  - o **Regulatory changes** allow pharmacists to administer vaccinations and perform health screening and testing
  - o **Operation hours** - extended business hours and more flexible schedule

### **3 Type of Intervention Conducted by Pharmacist**

#### **1. Drug Utilization Review (DUR) program**

- Price: substitute lower cost drug for a higher cost drug
  - o Generic substitution - dispense a generic equivalent product instead of a named brand
  - o Therapeutic substitution - dispense an entirely different but similar medication
  - o Decision of using Pharmacy-covered drugs is made **prior** to dispensing to patients, meaning easier management for drugs billed under pharmacy
  - o “Buy and Bill” - important source of revenue for physician, could create conflict on management cost
- Utilization: require prior authorization for certain drugs. The criteria are as follow:
  - o Require the patient to have a validated diagnosis that justify the drug’s use
  - o Submission of certain lab values
  - o Length of time the drug will be covered
  - o Amount of the drug the patient can receive
- Time - fill in the gap in communication in the prior authorization process

#### **2. Medication Therapy Management (MTM)**

- Required benefit for Medicare Part D plans
- 9 components or scopes of an MTM program should have:
  1. Performing or obtaining necessary assessments of the patient’s health status
  2. Formulating a medication treatment plan
  3. Selecting, initiating, modifying, or administering medication therapy
  4. Monitoring and evaluating the patient’s response to therapy
  5. Performing a complete medication review to identify, resolve, and prevent medication-related problems
  6. Documenting the care delivered and communicating information to the patient’s other primary care providers

7. Providing verbal education and training designed to enhance patient understanding and appropriate use of medications.
8. Providing information, support services, and resources designed to enhance patient's adherence with their therapeutic regimens
9. Coordinating and integrating MTM services within health care-management services being provided to the patient

**NOTE:** This would make a good critique question for an MTM program

- Core requirements to have MTM program
  - o Have multiple chronic conditions
  - o Are taking multiple Part D drugs
  - o Are likely to incur annual costs of at least \$4000 for all covered Part D drugs
- MTM focus on face to face interaction are better to overcome language and literacy issues.
- Telephone MTM can reach patients in remote locations

### 3. Pharmacist-Delivered Care Management Programs

- The following is the metrics used to measure drug adherence (i.e. sticking to the drug plan)
- Medication Possession Ratio (MPR)

$$MPR = \frac{\text{No. of days' supply in the patient's possession}}{\text{No. of days during the measurement period during which the patient could have had the drug}}$$

- Proportion of Days Covered (PDC)

$$PDC = \frac{\text{No. of days of coverage}}{\text{Total no. of days in the measurement period}}$$

- MPR counts all days of supply that could be overlapped
- MPR can be > 1
- PDC avoid double counting
- 80% is minimally beneficial for possession ratio
- However, the author concludes that there are little evidences of any economic impact from pharmacist interventions

### Clinics

Clinic	Description
<b>Retail Clinics</b>	<ul style="list-style-type: none"> <li>o Good for basic acute care and non-urgent illnesses with competitive price</li> <li>o Located in larger retail stores and pharmacies</li> <li>o Usually open when hospitals are closed and weekend</li> <li>o Staffed by board-certified nurse practitioners</li> <li>o Shorter waiting time</li> <li>o This business model will expand significantly due to Affordable Care Act</li> </ul>
<b>Employer Worksite Clinics</b>	<ul style="list-style-type: none"> <li>o Introduced by self-fund employer insured plan resulting from Employee Retirement Income Security Act of 1974 (ERISA)</li> <li>o Focus on healthcare services to employees and their families</li> <li>o Reduces medical costs, improve worker productivity and provide easy access</li> </ul>



Clinic	Description
<b>Urgent Care Clinics</b>	<ul style="list-style-type: none"> <li>○ More services than retail clinics (e.g. fractures).</li> <li>○ Treat episodes that are more serious in retail clinics but not serious enough to need hospital admission</li> <li>○ Longer operating hours than hospital</li> <li>○ Contribute to emergency room diversion</li> </ul>
<b>Federally Qualified Health Centers (FQHCs)</b>	<ul style="list-style-type: none"> <li>○ Created by federal government to provide healthcare service and improve the health care to the underserved and uninsured.</li> <li>○ Safety net providers such as community health centers and public housing centers.</li> <li>○ Use sliding fee scale with discounts based on family size and income</li> <li>○ Benefit for operating a FQHC               <ol style="list-style-type: none"> <li>1. Cost based reimbursement under Medicare</li> <li>2. Medical malpractice coverage through the Federal Tort Claims Act</li> <li>3. Reduced cost medication through 340B Drug Pricing Program</li> <li>4. Access to National Health Service Corps</li> <li>5. No cost vaccination to children under Vaccine for Children Program (i.e. can get reimbursement from this program)</li> </ol> </li> </ul>

### #11: Gaps in Care and Quality Improvement Programs

- Two approach to identify high-risk patients
  1. Analytical models – regression-based with newer mining techniques
  2. Rules-based models – evidence-based medicine which identifies the deviation in treatment from best-practice care. These deviations are called **gaps in care** and the aim is to improve clinical quality.
- Care gaps data are transmitted to physicians so they can close the gaps during patients visit. It provides number to be measured and reported.
- Difficult to reconcile with statistically based predictive modelling.
- Quality improvement programs that achieve meaningful use of Electronic Health Record (HER) of programs determine the eligibility of government payment. Failure to reach meaningful use would be penalized.

### #12: Telemedicine, Telehealth, and Automated Monitoring

	Description				
<b>Telemedicine</b>	<ul style="list-style-type: none"> <li>○ Obtains medical data that are sent from one location, and remote providers use them to diagnosis and provide treatment in another location.</li> <li>○ Patients and healthcare provider are not at the same location.</li> <li>○ Fosters connectivity between providers and better delivery of care</li> <li>○ Example: remote consultation using audio and video data.</li> <li>○ Private payers are required to cover telemedicine services if the same services are provided in person, starting October 1, 2012</li> <li>○ Changes due to Affordable Care Act</li> </ul> <p><u>Changes Due to Affordable Care Act</u></p> <table border="1"> <thead> <tr> <th>Medicare</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> <li>○ Direct Center for Medicare and Medicaid (CMI) Innovation to explore how to use electronic monitoring in the care.</li> <li>○ Allow CMI to develop new model that can utilized the telemedicine/telehealth technology</li> <li>○ Required new ACOs find ways to adopt telemedicine/telehealth technology in their businesses</li> <li>○ Includes use of remote monitoring for medical practices in the Independence at Home Demonstration Program</li> <li>○ Allows healthcare providers to use these new technologies to certify the need for home health services</li> </ul> </td> </tr> <tr> <th>Medicaid</th> </tr> <tr> <td> <ul style="list-style-type: none"> <li>○ Allows states to use health home options for chronic conditions to use wireless technology.</li> </ul> </td> </tr> </tbody> </table>	Medicare	<ul style="list-style-type: none"> <li>○ Direct Center for Medicare and Medicaid (CMI) Innovation to explore how to use electronic monitoring in the care.</li> <li>○ Allow CMI to develop new model that can utilized the telemedicine/telehealth technology</li> <li>○ Required new ACOs find ways to adopt telemedicine/telehealth technology in their businesses</li> <li>○ Includes use of remote monitoring for medical practices in the Independence at Home Demonstration Program</li> <li>○ Allows healthcare providers to use these new technologies to certify the need for home health services</li> </ul>	Medicaid	<ul style="list-style-type: none"> <li>○ Allows states to use health home options for chronic conditions to use wireless technology.</li> </ul>
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<b>Telehealth</b>	<ul style="list-style-type: none"> <li>○ No widely accepted definition; Telehealth includes Telemedicine as its sub-category, and it shares similar definition from the book</li> <li>○ Facilitate the delivery of healthcare or promotion of health that include health education, disease prevention, treatment monitoring, data collection and analysis</li> </ul>				

	Description
<b>Automated Monitoring Systems</b>	<ul style="list-style-type: none"> <li>○ Provide data for better and more informed treatment decision</li> <li>○ Can be onsite or remotely</li> <li>○ One big drawback is its cost is usually higher than the benefit</li> </ul>

### **#13: Bundled Payment Initiatives**

- Alternative reimbursement mechanism that incentivize better care coordination
- Historically, services are reimbursed at fee-for-service basis. Medicare use RVU (relative value units) to estimate the amount of work to guide on reimbursement, which lead to maximize RVUs (i.e. increasing services for higher pay).
- Affordable Care Act has allowed CMS to bundle payment based on services that included or not included in diagnosis-related group
- Bundle payment cover services provided by a single entity or by multiple entities. The model on bundle payments can be both retrospective or prospective
- Aims to improve quality of care while supposedly lower cost by aligning the financial incentives of multiple providers
- Too early to call if bundled payment has positive impact on cost and savings.

### **Conclusion**

- All interventions rely heavily on identification of risky patients using medical claims and sophisticated scoring
- All interventions rely on evidence-based care and standardized treatment.
- All interventions rely on clinical resources to perform evaluation of the patient's condition.
- All interventions rely on patients own care.
- Economic benefits of all interventions are difficult to prove.

### **Practice Questions**

#### **Q1: List the 13 care management programs**

1. Pre-authorization
2. Concurrent Review
3. Case Management
4. Demand Management
5. Disease Management
6. Specialty Case Management
7. Population Health Management
8. Patient Centered Medical Home
9. Accountable Care Organizations
10. Non-traditional provider interventions and care settings
11. Gaps in Care and Quality Improvement Programs
12. Telehealth, Telemedicine and Automated Monitoring Systems
13. Bundled Payment Initiatives

#### **Q2: An ACO has reported 10 quality metrics with a saving hurdle rate of 1%. Does it qualify the saving program with CMS?**

No, it failed on two requirements:

1. At 1st year, ACOS must be able to report on 33 quality metrics; at later years, ACO has to meet actual care qualify target
2. Must surpass a saving hurdle rate between 2% to 4%

**Q3: What are the 7 principles to establish Patient Centered Medical Home?**

1. Personal physician
2. Physician directed medical practice
3. Whole person orientation
4. Coordinated and Integrated care
5. Quality and safety
6. Enhanced access
7. Reimbursement structure to support and encourage this model of care