



# World-Renowned West Coast University Medical Center

## Ricoh Automates Patient Packet Workflow to Reduce Privacy Compliance Risks, Improve Efficiency and Enhance the Patient Experience

### About the Customer

For more than 50 years, this world-renowned university medical center has focused on delivering quality healthcare with measurable results. As a world leader in the medical research field, the center has pioneered some of the most significant medical breakthroughs in history. Offering both virtual and in-person care for patients, the center also partners with the community it serves to improve overall health and well-being. Ranked as among the 10 best medical centers in the U.S., it also serves as a teaching hospital to a very prestigious affiliated university on the West Coast.

### Challenge

- Paper-intensive patient letter creation process that wasn't compliant with patient experience and HIPAA compliance goals.
- Lack of audit trail and tracking to find individuals responsible for potential breaches or patients impacted by receiving the wrong information.
- No visibility to individual efficiency or volume per clinic or specific packet type.
- Increased operational costs due to an ad hoc process, manual tracking and random quality inspections aimed at attempting to prevent PHI breaches.
- Inconsistent branding—more than 50% of patient letters did not meet the corporate branding guidelines.
- Inability to incorporate urgent changes with letters negatively impacted patient experience.

*Since implementing Ricoh's patient packet workflow, there has been an increase in the packet production, a reduction in the packet backlog and an increase in the confidence that the packages are being produced with minimal PHI risk.*

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## CASE STUDY: HEALTHCARE

- 120-day lead times to create a new patient letter type or make changes to existing packets within Electronic Health Record (EHR) system.
- Backlog of approximately 200 patient letters per day, requiring schedulers to spend additional time completing patient appointments.
- Manual chargeback with no tracking or auditing capabilities for postage and printing.
- Inability to create patient packets remotely requiring onsite presence of schedulers and supervisors.

The New Patient Package (NPP) is the medical center's first chance to make a good impression with patients and convey a professional, organized and efficient brand message. The NPP provides all the key first appointment information that patients need. It is a personalized letter with confirmation of the patient's appointment along with helpful facility information such as location and parking locations. It also includes modality-specific instructions, physician-specific questionnaires, pre-requisite information for specialty appointments such as fasting, and tests that need to be conducted in advance.

The medical center had a very time-consuming, inefficient and risk-prone process for creating patient packets. Their enterprise contact center scheduled all patient appointments for the medical center's hospital and clinics and sent out each patient packet. Once an appointment was scheduled, the confirmation letter was triggered from the hospital's EHR (Epic in this specific case), prompting the scheduler to walk to the printer and retrieve a printed confirmation letter.

Next, the scheduler assembled the patient packet by locating the correct location map, appropriate modality letter and physician-specific questionnaire. The collected papers were then manually sorted, folded, stuffed and sealed in a small or large envelope and placed into a specific bin for a mail center employee to pick up. This is the part of process which needed an effective & automated solution.

In an attempt to minimize incomplete or incorrect information in the packets, one medical center supervisor performed periodic quality checks by randomly choosing envelopes to audit for PHI compliance. Furthermore, removing cancelled appointment letters was manual, labor intensive and hit or miss. In addition, the medical center lacked a systematic process to stop printing,

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*Now the medical center has consistent branding and the capability to insert marketing materials—with ongoing \$250K/year savings.*

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packet assembly and mailing of patient letters for appointments one- to two-days out—and information wasn't reaching the patient before their appointment. Also, anything printed after the 11:45 a.m. mail drop time had to be locked at the end of the day for PHI compliance and redistributed the next day to schedulers—impacting efficiency, creating backlog, and causing delays in completing letters.

Managing and updating the pre-printed patient packet information was cumbersome and inconsistent. Various pre-printed forms were stored in folders, on countertops, in drawers or on shelves in multiple areas. Additionally, the print and mail center had to stock and manage the various types of pre-printed paper forms, which took them away from more value-added tasks. This had increased the propensity to send outdated information significantly and required additional version control efforts.

Incorrect information in patient packets had a direct impact on patient experience. The patient privacy would be impacted if the wrong information was sent to the wrong patient. This paper-based, highly manual workflow posed a significant privacy violation risk for the medical center.

In addition to the patient's privacy risk, their experience was impacted by the backlog. The medical center was spending more than \$40,000 a month on various patient packet components (prints, mail costs, returned mail, resources, etc.) and the charge-back process to different departments and clinics was manual, error prone and time consuming. Furthermore, there was no clear visibility on the volume, letter types, return mail and cancellation rates—depriving the medical center of valuable insights such as whether a no-show was due to undelivered mail.

## Results

- Our solution assists in preventing the release of PHI to the wrong patient and enhances the patient experience with timely, accurate information for their appointments.
- All patient letters are automatically collated, printed, and stuffed in the envelope based on the pre-defined rules and systematically audited twice for accuracy.
- Automated auditing, tracking and reporting that proactively notifies of any potential PHI breaches before mailing further reducing the risk of PHI violation.
- \$250K/year savings and additional savings with the potential rollout of more packet types to more departments.
- 100% brand compliance with a consistent, standard look for each patient packet.
- Ability to quickly incorporate changes to patient-related letters and add marketing materials to the patient packet.
- Improved the new letter creation timeframe from 120 days to 2 days.
- Zero backlog and additional capacity to support a 20% increase in patient packet volume—resulting in more appointments.
- Automated chargeback reporting.
- Capability to perform patient packet work remotely or outsource.
- Additional insights to improve the clinical workflow.

With the new patient packet solution, the medical center has been able to automate 100% of the patient packet workflow process. All patient letters are automatically collated in the digital packet, printed and stuffed in an envelope based on pre-defined rules and audited twice for accuracy before mailing. There's no need for the schedulers to collect printouts and find pre-printed information from various bins.

Automated auditing, tracking, and reporting capabilities provide proactive notification for any potential PHI mix-ups before the patient letters are mailed. Now, departmental print queues only print during pre-allocated times, reducing the probability of errors and compliance violations. Anything printed after 11:45 am is stored in the print queue and released next day at the pre-allocated time—reducing the potential for PHI violations and improving resource utilization.

Printing, resources and mailing costs have also been reduced. Patient packets for canceled appointments and appointments scheduled within seven days are not printed at all—which has decreased patient packet production by 10%. Furthermore, supervisors no longer have to perform manual quality checks—freeing them up for other tasks.



The automated patient packet solution also elevates the document management process. A digital library of relevant documents houses facility information, modality specific instructions/pre-requisite information for specialty appointments and physician-specific questionnaires. The digital copies of the documents can be modified or refined as needed within one business day, providing flexibility and speeding the change process. Furthermore, every patient packet type is digitally assembled based on pre-defined rules, which allows the medical center to insert additional information or customized information to improve the patient experience.

With a digital document library and rules-based packet creation, letters are now 100% compliant with the medical center's latest brand guidelines and any changes can be quickly implemented. Rules-based packet creation has opened the door to incorporating marketing materials targeting specific conditions, clinics or locations providing a strong marketing tool while reducing expenses for direct marketing campaigns to the same patient population.

### How We Did It

- Leveraged deep understanding of healthcare workflows and challenges to implement a patient packet governance framework and standardize the process.
- EPIC EHR integration (HL7 ADT) with HealthWare Print Management software.
- Built a digital correspondence library within the HealthWare Print Management software.
- Added a barcode on the first page of digital letters for tracking, auditing, reporting and return mail handling.
- Ricoh high-speed printer and Quadiant device to fold, stuff and seal envelopes.
- Ricoh Managed Services with Ricoh employees handling printing and mailing.

Ricoh has been providing Managed Print Services at the medical center for nine years, continually looking for ways to optimize workflows, reduce compliance risk, enhance operational efficiencies and improve patient and staff experience. The issue of patient privacy risk and inefficiency in the enterprise contact center emerged at one of the weekly on-site meetings with the center's IT department. Intrigued by the suggestion to streamline and automate the contact center's workflow, the IT department escalated the proposal to the medical center's leadership. Next, an in-depth assessment of the contact center's existing manual workflow was conducted to identify ways to reduce the risk. From there, the medical center's leadership gave the green light to automate the pre-printing of letters, manage the inventory and paper letters for each group, and collate and mail patient packets.

A correspondence governance framework was used to standardize the automated patient packet process. A digital document library was created based on existing documents and forms and a sequence and rules were developed to coalesce the documents for specific types of patient packets. A dual auditing mechanism was also built by incorporating a barcode with necessary information on the first page of digital letters for tracking, auditing, reporting and return mail handling. This mechanism was then integrated into the medical center's EPIC EHR via HealthWare Print Management software—creating a powerful configuration that enabled the medical center to create patient packets digitally, schedule printing per departmental print queues and print during a pre-allocated time.

In addition, various USA rules were added to tighten up the process. Anything printed after 11:45 am would be stored in the print queue and released the next day to reduce the potential of PHI

violations. Canceled appointments or appointments scheduled within seven days—where information wouldn't reach the patient before the appointment—wasn't printed at all. The mailing end of the workflow was also automated to generate a label with a barcode that is then compared to the barcode on the patient packet documents for quality control, tracking and final audit. Dual quality checks were also implemented—first at the time of printing and a second check at the Quadiant device.

This enabled proactive alerts if any information was missing or the potential for a PHI violation existed. Additionally, the solution included automated sorting and routing of returned patient packets using the barcode to drive additional process efficiencies and savings. Furthermore, new letters and letter changes were done in HealthWare Print Manager, rather than EPIC, to significantly speed the implementation process from 120 days to 2 days.

Since letter creation was a distraction from the core function of the scheduler, Ricoh Managed Services provided end-to-end responsibility for creating and mailing the letters. With the inclusion of managed services, the Ricoh Printer and Quadiant machine were placed in a dedicated room that is locked at the end of each day to further strengthen privacy compliance.

Automating the production of patient packets in the contact center was just the first step in the medical center's digital journey. With proven risk reduction and improved efficiency, the medical center is now considering implementing this solution for other packet types (complex claims, denial packets etc.) to achieve similar efficiencies, reduce errors and decrease PHI violation risks.

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See how Ricoh enhanced a medical center's **administrative efficiency** by automating its patient packet workflow or **contact us**.