

**Clinic management systems or CMS in short, are becoming more commonly used these days. However, I estimate that about half of all private clinics are non-systemised. Having run a solo private practice and used a commercially available CMS to manage the clinic for over three years, I share here my experience of moving from a paper-based system to one that is paper-light. Hopefully, this article will be useful to those who are contemplating on switching to a CMS.**

## WHAT IS A CMS?

CMS commonly refers to that part of the running of the clinic (including patient care) that is automated, computerised and shared among different terminals. Generally, a CMS includes the use of electronic medical records for patient management. Clinics using a CMS are often paper-light or paperless, as medical records should mostly (or wholly) be registered into the software program. A CMS can also assist in accounts and inventory management.

Currently, there are several commercially available brands of CMS in the market. Each has its own uniqueness, pros and cons, and price points. Some doctors even customise their CMS to better suit their clinic's needs.

## WHY SYSTEMISE YOUR CLINIC MANAGEMENT?

Firstly, a CMS improves the appointment booking process. In the past, when a clinic assistant (CA) received calls from patients to book appointments, the information was simply written in an appointment book. Nowadays, appointment bookings are more complex. Some of my patients may request the CA to book a series of tests (eg, lab tests, MRI and scopes) within the same morning so that they could avoid long gaps between tests, which explain why having expandable space on the appointment calendar is important.

With a CMS, referring to medical records is quick and easy. Sometimes, an old patient may call the clinic to

complain of reactions after taking prescribed medications. In a non-systemised clinic, the old records would have to be retrieved manually, which takes time. Using a CMS, the old records, including prescription history and past laboratory or imaging results could be retrieved within seconds. Any doctor who has been in private practice for more than ten years will tell you that storage space for old medical records is a big headache, especially since clinic rental has gone up in the last few years. For specialist clinics like mine, countless lab reports, X-rays, endoscopies and inpatient notes have to be archived. With a CMS in place, these records are digitised, thus saving space and money.

Last but not least, the Singapore government currently provides grants under the Productivity and Innovation Credit (PIC) scheme, which gives a 400% tax deduction for expenses on innovation, automation and upgrading. This scheme will end in 2018, so if you decide to systemise your clinic's operations, you should do so before the deadline.

## ACCOUNTING BENEFITS

In my clinic, many tests are ordered on a daily basis and patients are reviewed again after all the tests are done. Some patients pay for the tests at their first consultation, while others may prefer to pay at their final review (which may be a few days later). Using a CMS, payment errors can be avoided, as the system indicates whether payment has been received.

A CMS can also track the daily revenue via GIRO, cheques, cash or credit cards at the end of each day. A clinic manager (CM) can churn out the daily finance balance effortlessly. The CM can also easily generate the revenue, accounts receivables and accounts payable on a quarterly and yearly basis to be handed over to the accountant.

The important thing is that all accounting processes are systemised and calculation is done by the software. As no manual calculation or book-keeping is required, there is a much smaller risk of human error.

## INVENTORY MANAGEMENT

Once a load of drugs arrives at my clinic, the CM usually enters data regarding the drugs (eg, lot number, date of expiry and total number of tablets) into the CMS. The CMS helps to track the usage and expiry dates, and send reminders when the expiry date is nearing. This avoids mistakes of prescribing expired drugs to patients by accident and is also handy since many pharmaceutical companies allow exchange of soon to be expired drugs with new stock.

A CMS also allows the tracking of past usage, which helps in determining the quantity of a particular drug that should be ordered. Personally, I conduct stocktaking every one to two months to check that the amount of drugs matches the records in the CMS.

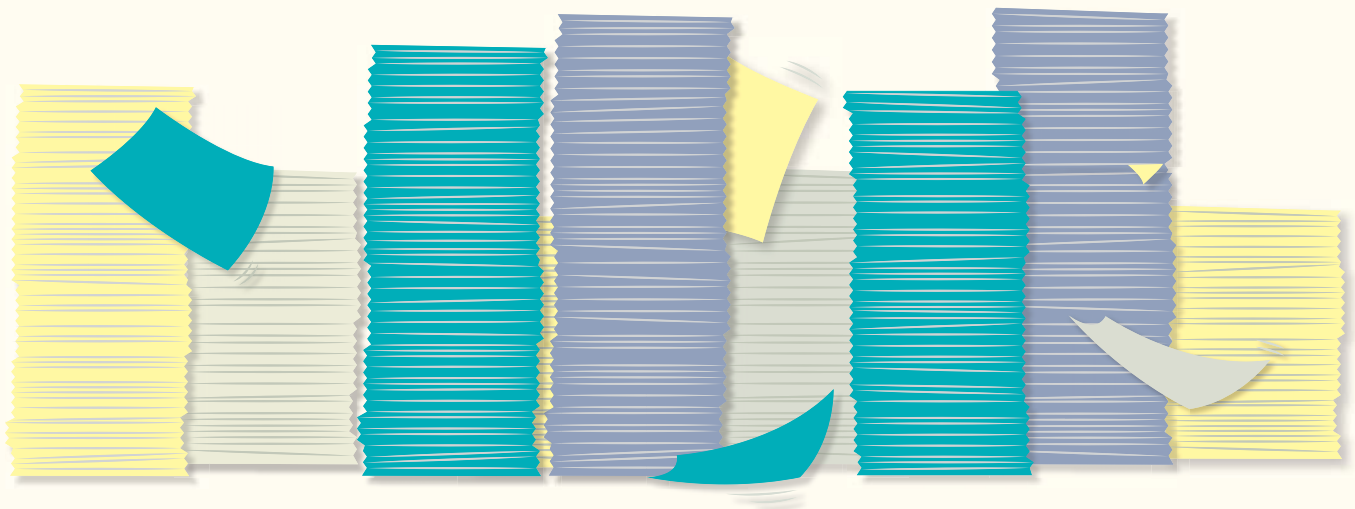
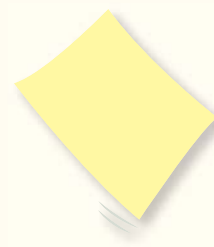
### PROFILE



#### TEXT BY

### DR DESMOND WAI

Desmond is a gastroenterologist in private practice. Like other medical colleagues, he is still struggling to balance family and work. Desmond believes that sharing our thoughts and experience is important in moving our profession forward.



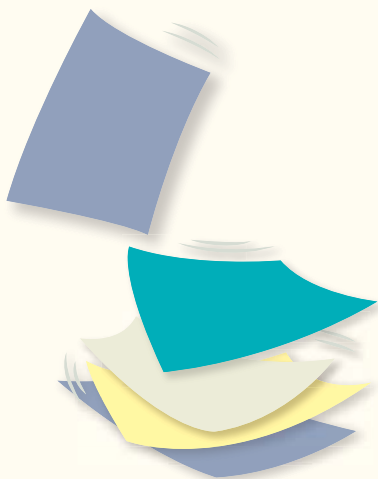
## FRAUD AVOIDANCE

It is not uncommon to hear stories of fraud in clinics. As many doctors merely dismiss the staff involved without reporting him or her to the relevant authorities, cases published in the newspapers are often just the tip of the iceberg.

In one news article published in 2010, a CA of a specialist clinic stole more than S\$100,000 over a four-year period. According to the report, the clinic involved did not have a CMS in place. Handwritten receipts were issued from a clinic receipt book and the CA bought identical receipt books for herself. When a patient paid in cash, the CA issued fake invoices to patients and pocketed the cash. There was, however, no record of this transaction in the clinic receipt book.

In other unreported stories, some CAs have been found to inflate clinic charges and pocket the difference. For example, when a doctor charges S\$100 for a consultation, the CA bills the patient for S\$200. The CA then issues a receipt for S\$200, deletes the transaction later and puts down a sum of S\$100 in the clinic records.

The common thread in these fraud cases is the issuance of a fraudulent receipt to patients by a clinic staff. However, if a clinic uses a CMS, records of any issuing or deletion of receipts are captured, making it more difficult for a clinic staff to commit such frauds.



## PITFALLS OF USING A CMS

For commercial CMS, there is often a setup installation cost followed by monthly maintenance cost. Though the PIC subsidises part of the expenditure for now, the PIC scheme may be discontinued after 2018. Thereafter, clinics will have to bear the full cost of maintenance.

Although a CMS is easy to use, problems do occur intermittently. One instance is when a patient pays for a test at the first consultation but later decides to cancel the test and request for a refund. This is a legitimate request, but most clinic staff would require assistance in processing the cancellation and refund.

CMS providers offer telephone assistance for scenarios like the above. However, the working hours of most CMS providers are from 8.30 am to 5 pm, while most clinics are open beyond the normal working hours. So whenever I encounter any problem in closing the day's account, I have to figure it out myself. This time difference is an issue, as many family clinics open at night.

Another issue is the limited headcount of CMS providers who also run the telephone support service. As such, during busy hours like Monday mornings, or at the end of the day when staff most frequently encounter CMS problems, the telephone lines are often engaged. Besides, I have also noticed that the manpower turnover at such helpdesks is quite high and many new service staff do not fully comprehend the problems faced by the clinic staff.

Also, commercial CMS providers often require clinics to sign a long-term contract. Breaking the contract halfway may lead to a penalty fee. Besides, it is logistically difficult to disconnect one CMS provider to join another. Imagine the disruption if a clinic discontinues from one CMS provider only to have the new

CMS provider unable to retrieve data from the previous software! Therefore, engaging a CMS provider is almost like a marriage, so one must consider carefully before signing on with a provider.

On a similar note, clinics must also be sure that the CMS provider they have engaged is financially sustainable. If the CMS provider goes bankrupt, the clinics will face the same difficulties when switching to another CMS provider.

## FINAL THOUGHTS

I have found that using a paper-light CMS is more convenient because it makes tracing of case notes simpler and faster. Reports from imaging departments and laboratories are scanned into the system and the original copies shredded, thus reducing the amount of storage space needed. Overall, the setup cost of CMS, including purchasing of hardware and setting up of broadband Internet connections, is manageable due to the government subsidy. The monthly maintenance cost is also relatively affordable, and it does decrease over time.

Of course, there is room for improvement. Ideally, the telephone support service should extend its closing hours and be open on Saturdays, which would greatly help new CMS users. However, I have noticed that problems with the CMS requiring telephone support generally decrease with time. In my practice, we hardly need to call for support these days, as we seldom face problems with the CMS. It would also be useful if CMSs could expand to assist us in payroll and manpower management such as documentation of annual leave, calculation of CPF, etc.

Finally, I recommend that clinicians check with their colleagues and do their due diligence before confirming and implementing a CMS for their clinic. This could save you from major problems in the future. ♦