



MAP READ NUMBER FAQs

The CAR Mammography Accreditation Program is dedicated to maintaining the highest standards of care, promoting patient safety, and helping radiologists contribute to the very best healthcare for patients across Canada.

Below are some frequently asked questions relating to the minimum read number standard – (PR 2.2)

What prompted the change from 480 to 1000 reads/year.

It's the right thing to do and the change is overdue. Approximately 10 years ago there was enough evidence to update the standard from 480 to 1000 reads per year. At that time MAP was unable to operationalize the standard due to operational issues. In 2013, a comprehensive review of all MAP standards was undertaken by a panel of mammography experts. One of the recommendations from that review was again to update the read number standard to a minimum of 1000; with a preferred value of 1500 reads/year. Unfortunately, the comprehensive review recommendations were not implemented at that time. The CAR is again reviewing all MAP standards (2018-2019) and implementing long overdue changes supported by evidence. In 2019 MAP will publish a complete list of standards and we are also hoping to move to a digital content management system allowing us to move away from our current paper process. When this transition occurs, the other standard updates will come into effect.

Why 1000 minimum reads?

The 1000 read number is supported by peer-reviewed literature. There was no scientific evidence or rationale for the previous minimum annual reading volume of 480. The 480 annual reads was randomly chosen over 30 years ago by the American College of Radiology (ACR). The CAR-MAP was modeled after the ACR program, and the minimum read number was adopted along with other facets of the program.

1000 is the minimum number of reads where quality data begins to be statistically meaningful. It is difficult for the radiologist to adequately review and evaluate their performance and outcome when the annual reading volume is less than 1000.

When did this come into effect?

January 1, 2019. There were multiple communications sent on behalf of MAP in regard to this change, although we understand that many did not receive them and we anticipated this situation. For that reason, we are allowing radiologists a year from the time the next unit they are associated with comes up for accreditation to achieve the standard.

How come I wasn't consulted?

MAP standards are developed from evidence created and interpreted by radiologists, technologists and medical physicists. Accreditation standards are based on peer-reviewed evidence. The discourse around minimum volumes has occurred within peer-reviewed literature. The standards are about quality in the context of our healthcare system(s). The minimum read standard in many countries is significantly higher than 1000 and the

decision to go there was done also based on evidence. We have decided on a reasonable achievable standard intended to drive quality.

We do apologize if you did not receive any communications about the change. We will attempt to communicate changes to MAP out earlier next time. Our new software system allows direct communication with all radiologists registered within the MAP.

What is a “read”. Please define what a read is.

Below is the MAP definition of what counts towards a radiologist read number.

- **Screening Mammogram**
 - Reporting of a mammogram for screening purposes **including all previous cases** = 1 read
- **Diagnostic interpretation**
 - Any reporting of a mammogram for diagnostic purposes **including all previous** diagnostic and/or screening cases = 1 read
- **Double read**
 - 2nd review of a diagnostic or screening mammogram after a primary report, but not the final report, has been completed = 1 read. Evidence of a formal double read program should be made available.
- **Peer Learning/Quality Improvement review (percentage)**
 - Review of a diagnostic or screening mammography after the case report has been issued. Intention of the review is to provide peer-review feedback. Must have evidence of a quality improvement program. Peer learning programs within PACS are based on percentages of cases reviewed. We ask for the percent. For example, if you read 3000 mammography studies with a peer learning rate of 2%, then our software will add 60 reads to your total.
- **Interpretation/Review from a Simulation (course)**
 - Course review certificate with number of reads attained. All reads attained from a course should be listed on the course certificate. Ex. ACR Mammography Boot Camp. Course reads must be from a simulated environment; examination of cases which are presented on a PowerPoint (or equivalent) will not be considered.

Can I do double, QI or case review reads on any workstation or my IPAD?

No. To be recognized, MAP requires all reads be done on an approved workstation. This means the workstation is compliant with all MAP standards, assessed annually by a medical physicist and undergoes regular quality assurance checks.

Can breast reads from other modalities count?

No. Reads from ultrasound (sonography) or MRI are not included in the MAP definition of a read.

Does reviewing a tomosynthesis stack along with the traditional digital image(s) from a single patient case count as 1 or 2 reads?

Review/reporting of a single patient case including all their previous scans regardless of tomosynthesis counts as **1 read**.

Do I need to report my read number every year?

Yes, going forward. Currently, we only ask for a radiologist's number of reads when a unit they are associated with is undergoing accreditation/re-accreditation. Beginning in 2021, all radiologists will be required to provide their read numbers annually. A software portal will be provided to enter the information and further guidance will be provided there. We will be asking all radiologists and facilities to report based on the calendar year (Jan 1 to December 31). By fixing the reporting dates we will eliminate any variability and we have appropriate information if exemptions need to be made.

What evidence is required to demonstrate my read number

At this time **evidence is only required if requested.** You will be provided a form in which to enter your read numbers broken down by category. That form will also outline what evidence is required. For screening or diagnostic reads, PACS output would be ideal. With regards to double reads, we would accept any official documentation outlining your double screen program. Similarly, for Quality Improvement reads, demonstrated evidence of a QI program would be required.

How can I increase my read number?

A double read program is an effective means of increasing read number while also improving specificity and/or sensitivity depending on the type of double read program.

The ACR Breast Imaging Boot Camp with Tomosynthesis can be used to augment your read number. (more information below).

You can also attend the annual Canadian Society of Breast Imaging Conference where workshops will be available. The CSBI intends to offer additional learning programs.

In early 2023, the CAR will make available a case repository. When available all Radiologists participating in MAP will receive instruction on how to access the case repository via the the CAR learning management system, RAD Academy

You could also organize a local case review with a supervising radiologist who has been on the approved list of no less than 5 years.

Radiologists who do not meet the annual reads standard will be contacted by MAP with instructions on how to remediate the situation.

How many reads can I earn toward my annual total from case review, courses, and repositories.

300. This means that if you are below 700 reads, there is no mechanism to make up the difference to get you to the MAP standard and you will lose your approval status. For strictly diagnostic readers, please contact us at map@car.ca as there are fewer of you and we like to know more about your specific situation before we make defined rule.

Would a review of a case collection qualify as cases read?

Yes, we would count a case collection review as case reads. We will require documentation. The nature of the

documentation could vary. Sufficient evidence that this review took place should be provided. If you would like to pursue a case review to build your read numbers, we will provide a [template](#) document which must be signed along with the evidence you feel is appropriate.

Do I need to review both screening and diagnostic mammograms to qualify for MAP approval?

NO. MAP does not require both diagnostic and screening mammography. However, MAP recommends that radiologists review a mix of screening and diagnostic mammograms. There is evidence that performing both as part of regular practice optimizes sensitivity and specificity.

Do all radiologists who read from an accredited mammography unit need to be MAP approved?

YES. If an unapproved radiologist is reporting from an accredited unit, that unit will lose its accreditation status. A radiologist providing locum services for mammography is expected to meet the same standard as a permanent radiologist. When a radiologist cannot meet the MAP requirement, the facility in question must contact the MAP team to make note of their situation. In special circumstances, exceptions can be made.

I only read diagnostic mammography must I also read 1000/year?

No, although it is strongly recommended that radiologists reading only diagnostic mammography achieve 1000 reads per year it is mandatory that they do a minimum of 500 diagnostic reads. As stated above it is recommended that radiologists read both diagnostic and screening mammography as evidence indicates that doing both increases sensitivity and specificity. If you read any screening mammography, you must achieve 1000 reads/year.

If a locum radiologist from another country is providing services, will their reads from that country count toward the 1000 reads/year?

Yes, reads from another country would normally count, especially from countries which practice mammography in the same manner as Canada. All locums must be registered with MAP and we treat each case independently.

I have heard that exemptions for achieving the minimum 1000 reads can be made. Is there a list of exemptions?

No, there is no publicly available list of exemptions. We will treat each unique case with the attention it deserves to ensure that quality is the priority. As an example, if you provide reading services to a facility which does not perform 1000 mammograms annually, you are not guaranteed an exemption. There are other means to increase your read number as outlined above. We will expect a radiologist or facility to have utilized all possible means to reach the defined read standard prior to an exemption being issued.

How many reads would I get from attending the ACR Breast imaging Boot Camp with Tomosynthesis?

You will receive credit for approximately **240 reads** as well as 34.25 AMA PRA Category 1 credits which MAP recognizes as equivalent to MOCOMP Category 1 credits.

Is there a discount to attend the ACR Breast Imaging Boot Camp?

Yes, there is a discount of \$500 for CAR members who would like to attend the ACR Breast Imaging Boot Camp. The code to receive your discount is within the CAR Rad Academy.

- **Non-member Price:** \$5,000.00 USD - \$500 = \$4500 USD
- **Member Price:** \$3,500.00 USD - \$500 = \$3000 USD

Most of the referenced journal articles from the December 2018 communication to MAP facilities center around screening mammography. Does the literature support a 1000 read minimum for diagnostics mammography?

Yes. You are correct in that the literature review sent out in the December communication was focused on screening mammography. There is sufficient evidence to apply the same standards to diagnostic mammography. There is also sufficient evidence to support a higher minimum standard than 1000 read/year. Many countries require up to 5000 reads/year. There is also evidence to support improved outcomes when the radiologist participates in both screening and diagnostic mammography.

We recognize that some provinces have separated diagnostic from screening mammography. The CAR and CSBI's position is that this should not be the case, that radiologists participating in breast imaging read both screening and diagnostic mammography.

However, for radiologists reading strictly diagnostic mammography, the current minimum is 500 reads/year to accommodate those with no access to screening mammograms.

I've seen evidence that radiologists can underperform even if they read over 1000 reads/year. Can someone performing under 1000 reads/year not be a good performer? Has MAP not considered identifying underperformers instead of focusing on a minimum read number?

Yes; however, the 1000 min still stands. Because the incidence of cancer is relatively low, any metrics on radiologist's performance require an absolute minimum of 1000 reads to have any validity. It is the position of the CAR that radiologists should be performing their own annual performance assessments. One of the questions we ask of facilities during accreditation/re-accreditation is if you are evaluating your own performance metrics. Meeting this new standard will enable this practice.

As for the CAR identifying underperformers, it would be logistically impossible to collect performance metrics for every radiologist involved in MAP. It would require tracking all performance data over multiple years. The literature is clear that increased reading volume improves performance.

Has MAP considered the effect this change will have on the retention and recruitment of radiologists into mammography?

Yes. Updating the read standard is an evidence-based decision. Our focus is quality mammography and improved patient outcomes. The women of Canada know that the CAR-MAP stands for high quality mammography and this change shows that the primary focus of radiologists is the patient. This change may result in some radiologists foregoing the practice of mammography. We cannot ignore evidence because it is inconvenient. The CAR believes that our primary focus must be quality and improved patient outcomes.

Can radiologists who have lost approval to read mammography continue to perform breast procedures (aspirations, biopsies, fine wire locs, etc.)

No. Accreditation applies to all breast procedure as well as mammography interpretation.

If a site is accredited, any radiologist who performs these procedures must meet all requirements of accreditation. Will screening program throughout the country come into line with this new standard?

We can't say. We believe there should be a national standard for mammography within Canada. We would like to work with the provincial screening programs to voice our message of a common standard uniformly applied throughout the country. The separation of screening and diagnostic mammography in some provinces will also be a topic for discussion as we lobby for the individual radiologist to be able to access both of these areas.

Has MAP considered that getting the read numbers up to the standard will not be achievable for some?

Yes, we have explored this situation in detail. Our estimation is that approximately 5% of radiologists within MAP will not readily meet the standard. Some of these 5% would qualify for an exemption and the rest would be required to either build their reads in other ways.

Why does it seem like Mammography standards are more stringent than those for other modalities?

More DATA is available. Mammography has led the way for quality imaging and reporting. The CAR-MAP has been the driver of quality improvement in mammography in Canada. A recently published paper detailed the mortality reduction from breast cancer in women who attended Canadian Screening Programs (reference: Coldman, et al). These "stringent standards" make the difference between a statistically significant mortality reduction and no effect.

As other modalities are able to improve their data collection and demonstrate quality requirements, you can expect similar standards to be developed and implemented.

How long of a leave (no reading done) is acceptable for a radiologist who was previously MAP approved?

The maximum leave of absence for a radiologist who is approved under the Mammography Accreditation Program is 12 months. Exceptions such as parental, medical or "other" leave are allowed. There must be a demonstrated commitment to the maintenance of skills. For those on leave for a period of greater than 1 year, CPD credits must be maintained, and the reader is required to participate in a double-read program for the first 300 reads. MAP will accept the reads completed as part of the ACR Breast Imaging Boot Camp in lieu of the 300 double reads.

Do you participate in a double reads program and or a quality improvement program?

A signed attestation describing the program is required if you are participating in either of these programs. Here are some examples of attestations:

Attestation of double read program outlining the nature of the double read program.

Instituted on XXXXXX the double read program at XXXXXX facility involves the 2 reviews of all screening cases prior to issuing a report. Discrepancies are resolved through consensus.

Radiologist Signature:

Clinic Manager Signature (if applicable):

Quality Improvement program attestation:

On XXXXXX date, XXXXXX facility instituted a quality improvement program which involves a review of 5% of all reads. Feedback is provided directly to radiologists.

Radiologist Signature:

Clinic Manager Signature (if applicable):

So... Covid-19 happened. How are you treating reads numbers?

We will be asking for the 2019 read number of radiologists during 2020. Since the shutdown began in March of 2020, the read numbers should not be affected by COVID-19 in 2020. In 2021, we expect to see a decline in reads (2020 read numbers), the extent to which we do not yet know. We will be forgiving of individuals who were particularly affected by the shutdown in 2021. If the facilities volumes were badly affected by COVID-19 then we will take that into account upon approval.

We have also purposefully delayed asking for information due to COVID-19. Beginning in 2023 we will resume asking for all required information within the 3-months of the year. This will require radiologist in many jurisdiction to request their read number from their local PACS(s).