Sequoia (Dignity) Hospitals'
"MIDAS Inpatient Takeback Rate":
is not a takeback rate

The Sequoia records released to me after two years show how and why my colleagues voted to expel me. Dr. Chandrasena told the Chief of Staff, the AHC, the MEC and the JRC that I had a 20% takeback rate. If true, this would have been reason alone to expel me.

The QA computer table mislabeled "MIDAS Inpatient Takeback Rate" is not a takeback rate for assessment of surgeon quality. It does not use the simple formula of takeback cases divided by total cases used by every medical journal.[1,2] A search of the National Center Biotechnology Information database (NCBI, a computer listing of every peer-reviewed medical journals' publications internationally) not even one surgical journal has ever used the MIDAS ratio to represent or compare surgeon quality.[1,2]

The MIDAS number is a ratio to provide patient census information for billing purposes used only by Sequoia (Dignity). When an "Outpatient" having laparoscopic surgery has a takeback, they are transferred from their "Outpatient" census status (23-hour stay)(billing package for just one night) to the "Inpatient" (home when ready) census status so that they can be billed for each extra night as they are needed.

It is a ratio to provide patient census information for billing purposes. The Dignity Hospital-wide MIDAS computer computation for the *Inpatient* census that derived from any return to surgery, no matter whether the patients originated as an Outpatient or as an Inpatient. In contrast to the NSQIP standard takeback formula, the MIDAS ratio combines *both* census categories for the numerator, and divides it by *one* census category of denominator.

Applying the MIDAS formula to Sequoia's data on my practice, the 11 Outpatients who had takebacks, and were transferred to Inpatient census, and added to 4 Inpatients takebacks. Thus, 15 patients having had takebacks, divided only by the Inpatient denominator of 79: my MIDAS ratio is 20%.

I had: **79 open** Inpatients:

Takebacks	Total	In	Out
#return	15	4	11
Total	628	79	549
Rate	2.4%	5.0%	2.0%

$\frac{4+11}{79} = 20\%$

My MIDAS ratio = 20%

In contrast to the standard NSQIP formula, this formula combines two categories for the numerator, and divides only by one category for the denominator, giving a predominantly laparoscopic surgeon, with a small inpatient volume a high MIDAS number.

A surgeon with the *same 15 Takeback and 628 total cases*, using more open-incisions (i.e. more Inpatients) than my 12%, will have a higher denominator, and a lower MIDAS ratio:

Example: "GynOnc B" uses 30% open incisions in their practice, with the same 15 total Takebacks, divided by 179 open cases, giving them a MIDAS ratio of **8.4%.**

GynOnc B: **179 Open** Inpatients:

Takebacks	Total	In	Out
#return	15	4	11
Total	628	179	449
Rate	2.4%	2.2%	2.4%

$\frac{4+11}{179} = 8.4\%$

GynOnc B's MIDAS ratio= 8.4%

Example: "GynOnc C" uses 60% open incisions for in their practice, with the same 15 total Takebacks, divided by 379 open cases, giving them an MIDAS ratio of **3.9%.**

GynOnc C: **379 open** Inpatients:

Takebacks	Total	In	Out
#return	15	4	11
Total	628	379	249
Rate	2.4%	1.0%	4.4%

$\frac{4+11}{379} = 3.9\%$

GynOnc C's MIDAS ratio = 3.9%

A lower MIDAS rate thus does not necessarily reflect a better surgical record, but rather a lower rate of employing modern laparoscopic surgical approaches. Over the last 20 years, all Gynecologists have been encouraged to learn to perform appropriate cancer and general procedures by Outpatient laparoscopic approaches because the smaller incisions result in less pain, lower blood loss, shorter hospital stays, and quicker returns to work. I am proud that my GynOnc practice is 88% Outpatient laparoscopy.

This MIDAS Inpatient takeback ratio should not have been labelled as such in Sequoia's computer. But a Quality Assurance Director should have known this was not a takeback rate. Dr. Chandrasena at least should have questioned why this "number" was so much higher than the NSQIP data of 2.9% or the AHC data of 2.4% in her records. The MIDAS ratio may be a useful census listing for Dignity Hospital billing purposes, but nothing else. Regardless, I was thus expelled from my home hospital.

Conclusion #1: Even with the same complication numbers, the MIDAS ratio changes with the proportion of open and laparoscopic cases, and is lower when more open-incision Inpatient surgeries are performed.

Conclusion #2: A higher MIDAS ratio, given the same complication numbers, is an indicator of more laparoscopic, Outpatient surgery, which is good for patients.

Conclusion #3: The MIDAS ratio is not a Takeback rate for surgeon quality assessment and comparison.

Conclusion #4: Dr. Chandrasena should have known that the MIDAS ratio was not a Takeback rate, and should never have alleged to the AHC, MEC and JRC that my Takeback rate was 20% compared to other Gynecologic Oncologists 3.9% rate.

Conclusion #5: Dr. Chandrasena should not have ignored her own QA-computer-calculated NSQIP takeback rate for my practice, or their own hand-counted takeback rate, in favor of an proprietary census ratio used for billing purposes.

1. Birkmeyer JD, Hamby LS, Birkmeyer CM, Decker MV, Karon NM, Dow RW. Is unplanned return to the operating room a useful quality indicator in general surgery? *Arch Surg*. Apr 2001;136(4):405-11.
2. Lin Y, Meguid RA, Hosokawa PW, et al. An institutional analysis of unplanned return to the operating room to identify areas for quality improvement. *Am J Surg*. Jul 2017;214(1):1-6. doi:10.1016/j.amjsurg.2016.10.021