

## Society of Abdominal Radiology, Disease Focused Panel: Hepatocellular Carcinoma Diagnosis

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### Members

This Hepatocellular Carcinoma Diagnosis (HCC): Disease-Focused Panel started in 2014/2015 and has had a large membership, since its purpose is to provide as many educational opportunities as possible in order to help standardize HCC reporting throughout the radiology community. We have engaged members from all over North America, including radiologists who have been founders of LI-RADS, as well as radiologists in their early and mid-career who are enthusiastic and dedicated to the DFP's goals. Two liver transplant surgeons and a hepatologist have also dedicated their time to this group's work. The membership has a small, planned turnover every year to allow new members, with new ideas, to join.

For 2020, the HCC DFP membership includes: Claude Sirlin (founder and previous co-chair), Khaled Elsayes (co-chair), Ania Kielar (co-chair), Robert Marks, Alice Fung, Alvin Silva, Richard Do, Jimmy Lee, Kathryn Fowler, Jay Heiken, Donald Mitchell, John McGahan, Mustafa Bashir, Kedar Jambhekar, Sandeep Deshmuk, Ryan Ash, Bijan Bijan, Venkateswar Surabhi, Irene Cruite, Elizabeth Hecht, Eleanor Ormsby, Chris Kagay, Alessandro Furlan, Natally Horvat, Aya Kamaya, Joseph Yacoub, Chandana (Sandy) Lall, Anuradha Shenoy-Bangle, Roopa Ram, Mishal Mendiratta-Lala, Zahra Kassam, Katherine Blair, and Mohab ElMohr (Resident member).

### Looking back

Members of the HCC DFP have published many review articles in the past 12 months. At least 8 separate publications were recorded in this time frame, authored by a variety of the DFP members. A few of these include:

White paper of the Society of Abdominal Radiology hepatocellular carcinoma diagnosis disease-focused panel on LI-RADS v2018 for CT and MRI [1].

An update for LI-RADS: Version 2018. Why so soon after version 2017? [2] and

LI-RADS: a conceptual and historical review from its beginning to its recent integration into AASLD clinical practice guidance [3].

At the annual scientific meeting of the Society of Abdominal Radiology member of the DFP presented four separate workshops related to HCC diagnosis. This included:

- LI-RADS M and TIV: Application, Evidence and Implications. Presenters: Kathryn J. Fowler, MD; Alessandro Furlan, MD
- LI-RADS: A Primer and Update. Presenters: Jay P. Heiken, MD; Donald G. Mitchell, MD
- Imaging the Post-treatment Liver: Percutaneous Ablation, TACE, Y90 and SBRT. Presenters: David N. Bolus, MD; Silvia D. Chang, MD, FRCPC; Alison C. Harris, MBChB, FRCR, FRCPC
- LI-RADS: Past, Present and Future. Presenters: Victoria Chernyak, MD, MS; Robert M. Marks, MD; William R. Masch, MD; Mustafa Bashir, MD.

Another accomplishment of the HCC diagnosis group this past year has been the completion of the Clinician & Surgeon Survey regarding Radiology Reports for HCC: Highlights. 127 physicians responded throughout North American in academic as well as community/private practice settings. Highlights identified from the survey include:

- Clinicians and surgeons overwhelmingly value having a radiologist at liver-related multidisciplinary case conferences.
- Clinicians and surgeons in community hospitals/private practice prefer to have management recommendations included in the LI-RADS reports as part of the standard (> 75%). Only 45% of surgeons at academic centers feel the same way.

- c. There is a need to include clinicians and surgeons into planning and discussions when new updates are being made to liver reporting, including guidelines.

Information gleaned from this survey will be taken into account as the next version of LI-RADS is updated for 2021.

“Teaching the teachers” has been a project spearheaded within the SAR DFP:HCC diagnosis membership. This was conceptual idea which then led to a quantitative prospective study designed to evaluate the magnitude of teaching related to HCC diagnostic guidelines including the number of learners reached through this process. At the beginning of the study, an educational webinar illustrating the latest updates in HCC Liver Imaging Reporting and Data System (LI-RADS) was conducted for “teacher radiologists”. These teacher study participants ( $n=85$ ) were asked to formally teach this topic to other physicians and trainees when opportunities arose. Monthly surveys ( $n=6$ ) were sent to the teacher participants regarding how many learners they reached with their message. Based on the collected data, study participants were located in 24 countries. Teachers comprised 67 in an academic setting and 15 in a non-academic setting, with 3 in a mixed setting.

Over the 6-month study, an estimated number of 401 teaching interventions were conducted on approximately 8390 learners. 67.2% of learners stated that they were likely to apply the latest guidelines in their practice.

## Looking ahead

The HCC diagnosis DFP continues to have many projects on the go. Current preparations are underway for a 3-hour hands on workshop about HCC diagnosis for the 2020 SAR annual meeting in Hawaii.

Enduring educational case-based material on the SAR website is being created by members of this DFP. This will allow all members of SAR to have access to practice cases with answers and explanations to help radiologists strengthen their knowledge and experience using LI-RADS for characterizing and categorizing liver observations.

Plans are underway for the creation of new SAR DFP entitled “Post HCC treatment response imaging”. The goal

of this group will be to dissect various temporal imaging appearances of HCC after a variety of locoregional therapies, an area which has been identified as needing more research. By creating this group, some of the current members of the HCC diagnosis DFP will be able to move to this group in order to pursue new interests related to HCC. It will also allow more opportunity for other members of SAR to join the HCC Diagnosis DFP, as there has been a wait list for a number of years.

Finally, after 6 years as the co-chair of this DFP, Dr. Ania Kielar will be completing her 2-term tenure. Dr. Elsayes will continue in his involved role as co-chair with a new co-chair who will be announced at the 2020 SAR annual meeting. We are very proud of our active HCC Diagnosis DFP members who are always coming up with new ideas and finishing what the group has started.

## References

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