

# Cardiovascular Business

STRATEGIES IN ECONOMICS, PRACTICE & TECHNOLOGY



## ASE training clinicians as point-of-care ultrasound grows

*Dave Fornell | July 12, 2023 | Cardiovascular Business | Ultrasound*



There had been tremendous growth in point-of-care ultrasound (POCUS) use in the years leading up to COVID-19, and then there was a massive boost for its use during the pandemic. However, unless clinicians receive at least some sort of basic training on the use of ultrasound, they may not know what they are looking at or how to scan the required images for a diagnostic quality exam. The [American Society of Echocardiography \(ASE\)](#) recognized this issue early on and stepped forward to offer training for various POCUS users and to bring them into its membership.

With the entry of small handheld ultrasound


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the U.S. market over the past decade



*Review Article*

# **Point-of-Care Cardiac Ultrasound Training Programme: Experience from the University Hospital Hradec Králové**

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Point-of-care ultrasound examinations performed by physicians of different specialties are a rapidly growing phenomenon, which has led to a worldwide effort to create a standardised approach to ultrasound examination training. The implementation of emergency echocardiography by noncardiologists is mainly aimed at the standardisation of the procedure, a structured training system, and an agreement on competencies. This article summarises the current training programmes for nonechocardiographers at the University Hospital in Hradec Králové. In cooperation with cardiologists specialised in cardiac ultrasound (ECHO), an extended acute echo protocol dedicated to emergency department physicians was developed and validated in daily practice. According to our retrospective evaluation, after one year of clinical practice, we can confirm that point-of-care ultrasound examinations performed using the standardised limited echo protocol are safe and accurate. The observed concordance with comprehensive ECHO was 78%. This trial is registered with NCT05306730.

EDITORIAL

## The current and future clinical applications of capsule endoscopy

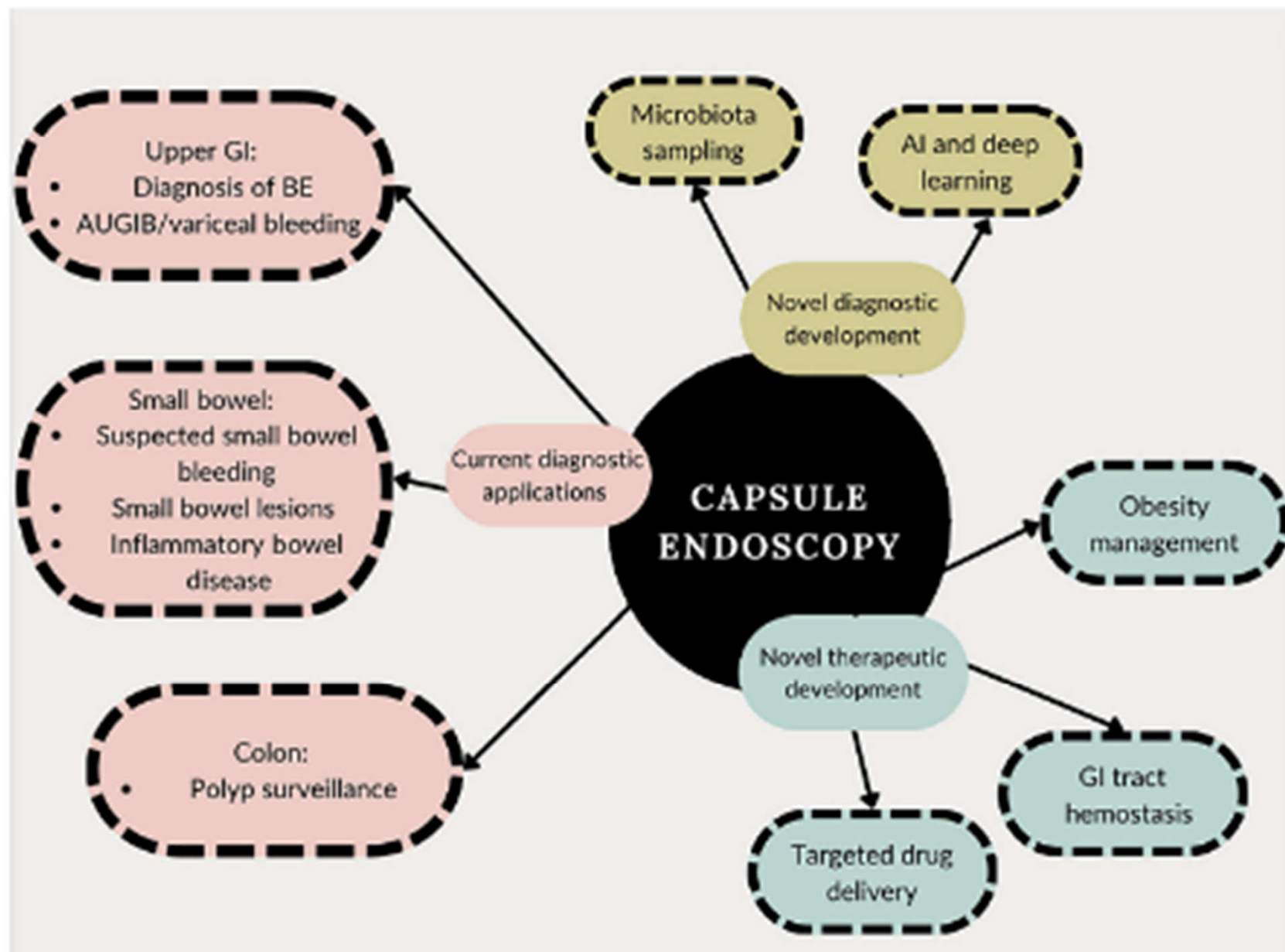
Capsule endoscopy (CE) has become an increasingly popular modality in facilitating the diagnosis of gastrointestinal tract pathologies that are beyond the reach of conventional endoscopy in the recent decades. Largely attributed to the lack of control of the capsule movement, most commercially available CEs are for diagnostic purposes at present. Yet, with the advancement in the capsule design and emerging technologies that allow for the manipulation and guidance of movement of the CE, it is anticipated that the roles of this medical device will be further expanded (Fig. 1).

developments in CE with a more compact design and better battery life, has expanded the role of this tool for the diagnosis of the esophagus, the stomach and the colon as well as the small intestine.

The most commonly used CE nowadays include Pyloric (small bowel), ESO 3 (esophageal), COLON 2 (Mallinckrodt, Minneapolis, MN, United States - formerly Given Imaging), CapsoCam<sup>®</sup> SV-2 (CapsoVision Inc., CA, USA), MiroCam<sup>®</sup> v2 (IntroMedic Co. Ltd., Seoul, South Korea), OMOM<sup>®</sup> (Jinshan Science and Technology Co. Ltd, China), Hitron<sup>®</sup> (Jinan Nefisa Medical Trade Co. Ltd, China).

(FDA) since 2001.<sup>1</sup> Over the years, rapid

sampling and biopsies, and providing a therapy



# **Non-alcoholic fatty liver disease progresses to hepatocellular carcinoma in the absence of apparent cirrhosis**

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Non-alcoholic fatty liver disease (NAFLD) is the most common liver disease in developed countries, and accumulating evidence suggests it as the hepatic manifestation of the metabolic syndrome (MS). Although the published prevalence of hepatocellular carcinoma (HCC) is low in NAFLD/NASH patients, most of these data have been derived from areas endemic for viral hepatitis. We recruited 162 adults with HCC between February 2007 and March 2008, investigated the underlying etiologies and determined the prevalence of the MS and related features within each group. Patients with NAFLD/NASH-associated HCC exhibited a higher prevalence of metabolic features (Type 2 diabetes mellitus, hypertension, dyslipidemia, coronary artery disease) compared to non-NAFLD/NASH-HCC. Intriguingly, a significant number (41.7%;  $p < 0.005$ ) of individuals with NAFLD/NASH-HCC had no evidence of cirrhosis. Patients with alcohol-induced liver disease also displayed many features (14/19, 73.7%) of the MS, although, in contrast to NAFLD/NASH-HCC, alcohol-associated HCC was highly associated with cirrhosis (95.0%;  $p = 0.064$ ). NAFLD/NASH as the hepatic entity of the MS may itself pose a risk factor for HCC, even in the absence of cirrhosis. The MS may also promote development of HCC among those with alcoholic liver disease. Increased awareness of liver manifestations in the MS may instigate early interventions against developing HCC.



**Table 1.** Identification of cirrhosis and non-cirrhosis in NASH and cryptogenic patients

Factor	NASH		Cryptogenic	
	No cirrhosis ( <i>n</i> = 17)	Cirrhosis ( <i>n</i> = 19)	No cirrhosis ( <i>n</i> = 14)	Cirrhosis ( <i>n</i> = 9)
Historically confirmed	<i>n</i> = 10	<i>n</i> = 5	<i>n</i> = 9	<i>n</i> = 2
Age at time of diagnosis (mean $\pm$ SEM)	69.5 $\pm$ 2.78	67.9 $\pm$ 1.41	68.18 $\pm$ 2.33	68.31 $\pm$ 2.45
Obesity	15 (93.8%)	18 (94.7%)	4 (33.3%)	1 (11.1%)
Type II diabetes	11 (64.7%)	12 (63.2%)	0 (0%)	3 (33.3%)
Ascites <sup>1</sup>	3 (17.6%)	5 (26.3%)	2 (14.3%)	3 (33.3%)
Thrombocytopenia <sup>1</sup>	1 (5.9%)	11 (57.9%)	1 (7.1%)	4 (44.4%)
splenomegaly <sup>1</sup>	4 (23.5%)	16 (84.2%)	2 (14.3%)	5 (55.6%)

<sup>1</sup>All patients presenting with one or more of these symptoms were labeled as non-cirrhotic, when histological confirmation could be obtained or no radiological signs of cirrhosis were shown and portal hypertension was alleageable by portal vein thrombosis.

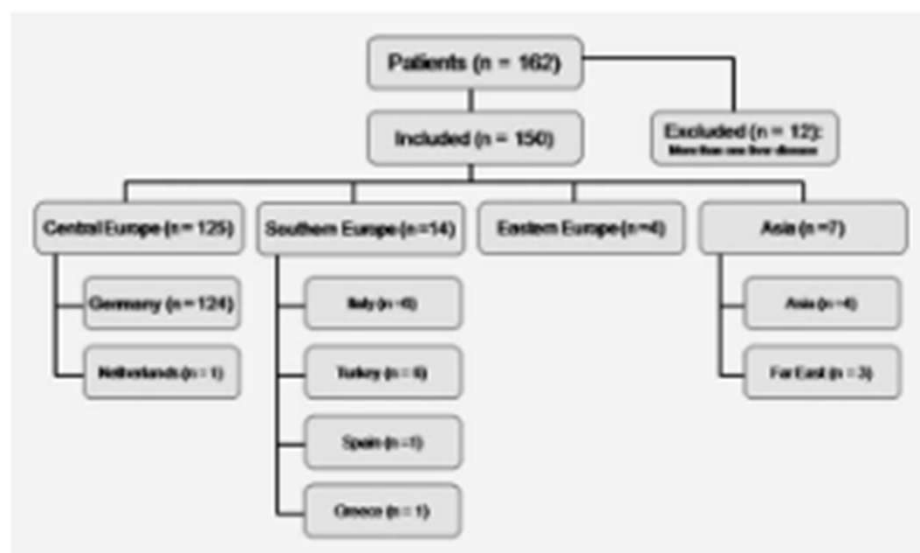


Figure 1. Distribution of patient origin. A total of 162 patients with hepatocellular carcinoma (HCC) were initially enrolled in this study, 12 were excluded, because of more than one underlying liver disease as potential cause for HCC. Thus, our study population consisted of 150 eligible patients. The largest proportion of patients originated from Central Europe ( $n = 125$ ).

The presence of HBV and HCV was confirmed by qualitative sero-positivity for HBV DNA or HCV RNA using standard laboratory tests.

#### Data Analyses and Statistics

Data are given as means  $\pm$  SEM for numeric variables, or as counts and percentages for categorical variables, unless stated

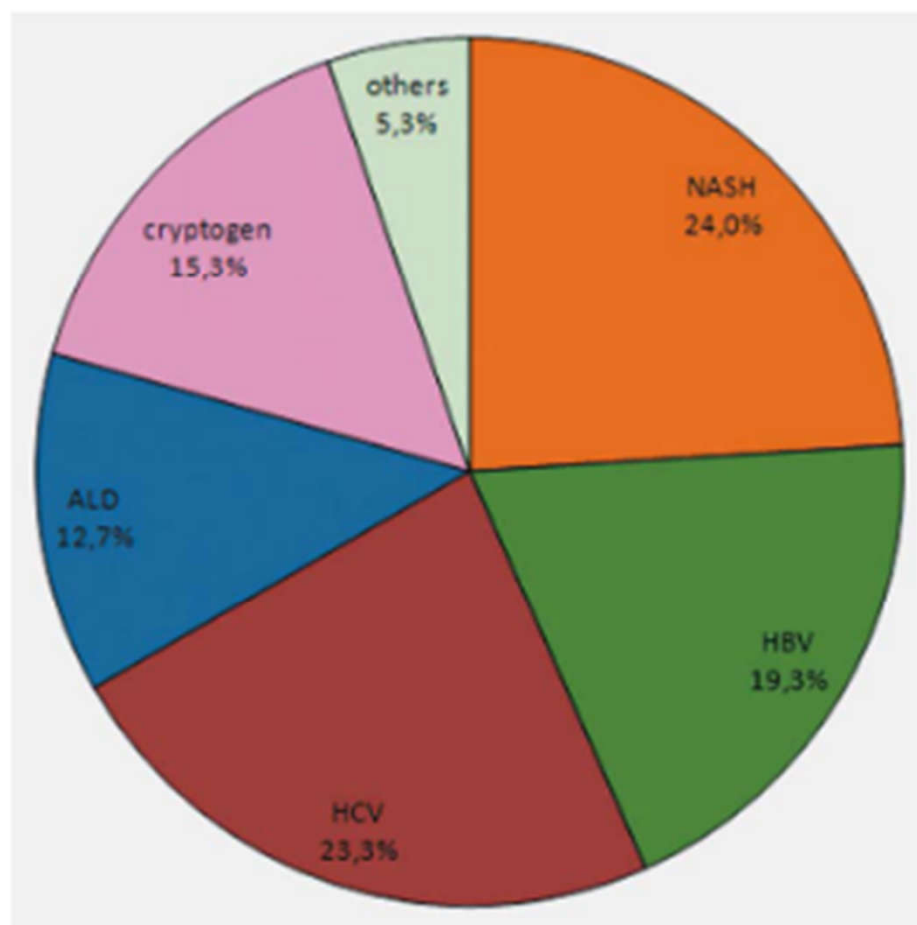


Figure 2. Etiologies of underlying liver disease for hepatocellular carcinoma (HCC). HCCs were most commonly associated with chronic viral hepatitis. The second leading cause for HCC was non-alcoholic steatohepatitis (NASH) (24%), while only 13% had alcoholic steatohepatitis.

# GOLD 2023 Update: Implications for Clinical Practice

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**Abstract:** In 2022, over 3 million people died of chronic obstructive pulmonary disease (COPD) and the global burden of the disease is expected to increase over the coming decades. Recommendations for the treatment and management of patients with COPD are published by the Global Initiative for Chronic Obstructive Lung Disease, and updated annually with scientific evidence-based recommendations. The 2023 updates, published in November 2022, contain key changes to recommendations for diagnosis and treatment of COPD that are anticipated to have a significant impact on clinical practice for patients with COPD. Updates to how COPD is defined and diagnosed, including the expansion of contributing factors beyond tobacco use, have the potential to lead to the diagnosis of more patients and to allow for the implementation of early interventions for patients during early stages of the disease. Simplification of the treatment algorithms, and placement of triple therapy within these algorithms, will support clinicians in providing appropriate, timely treatment for patients with COPD with a focus on reducing the risk of future exacerbations. Finally, recognition of mortality reduction as a treatment goal in COPD supports an increase in the use of triple therapy, the only pharmacological intervention that has been demonstrated to improve survival for patients with COPD. Although further guidance and clarification are needed in some areas, such as use of blood eosinophil counts in guiding treatment decisions and implementation of treatment protocols following hospitalizations, recent updates to the GOLD recommendations will support clinicians in addressing current gaps in patient care. Clinicians should utilize these recommendations to drive the early diagnosis of patients with COPD, the identification of exacerbations, and the selection of appropriate, timely treatments for patients.

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## Conclusions

The updates to the GOLD 2023 report provide a simplified approach to the management of COPD, which will support clinicians in addressing current gaps in patient care.

Further research and clarification are needed in several areas, including the identification of optimal treatments for patients with different etiologies, the cutoffs of blood eosinophils to guide treatment decisions, and the use of triple therapy after COPD hospitalizations.

It will remain critical for clinicians to interpret how best to implement the latest GOLD recommendations in clinical practice, particularly within the primary care setting, to ensure patients receive optimal, personalized care. We call on clinicians to utilize these recommendations to assist in diagnosing patients with COPD earlier, identifying more exacerbations and stratifying their severity, and reducing mortality by selecting the appropriate life-saving interventions.



## Surveillance imaging of post-treatment cancer patients may cause more problems than it solves

Surveillance imaging of post-treatment cancer patients may cause more problems than it solves



of the head and neck are better served by expectant management than routine imaging.

This is so for two main reasons. One, false positives have proven common in such follow-up imaging. And two, new research shows imaging fails to boost rates of positive outcomes yet may spur unnecessary downstream testing.

The research was conducted at the University of California, Irvine, and published this month in *JAMA Network Open*.<sup>[1]</sup>

For the study, [Allen Chen, MD, MBA](#), and colleagues reviewed records of 501 consecutive patients who had radiation therapy at their institution between 2014 and 2022.

Focusing on 340 patients in the cohort who had definitive negative results up to three years after treatment, the team found no difference in overall survival between those who had been imaged versus those managed expectantly.

Original Investigation | Oncology



November 10, 2023

# Posttreatment Surveillance Imaging After Radiation for Head and Neck Cancer

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[» Author Affiliations](#) | [Article Information](#)

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Start



neck cancer associated with outcomes?

**Findings** In this comparative effectiveness research study of 340 patients, imaging-based surveillance was not associated with improved outcomes compared with expectant management for patients who had achieved a complete metabolic response after completion of primary radiation therapy for head and neck cancer. This comparative effectiveness research suggested that patients who underwent surveillance imaging also experienced a higher incidence of unnecessary procedures and treatment-related complications.

**Meaning** These findings suggest that the routine imaging of asymptomatic patients in remission from head and neck cancers should be discouraged; the high rates of false-positive tests were of concern.

THE END