

WABIP Newsletter



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Guest Opinion/Editorial

Standardization of Interventional Pulmonology Training: a US perspective

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Prior to the creation of dedicated interventional pulmonary (IP) fellowship training (1996) in the United States, Americans had to travel abroad and/or learn from their surgical colleagues¹. The landscape has drastically changed since then with over thirty-three IP fellowship training centers in the US with additional programs on the horizon. IP fellowships in the US requires 12 months of dedicated training after completing residency in internal medicine and pulmonary/ critical care fellowship. This training spans a minimum of 7 years after medical school, equivalent to that of our neurosurgery training. With such sophisticated learners, the need for an organized and standardized training system was inevitable.

Since the initiation of the first IP fellowship program, standardized training has been an evolving process stemming from the rapid increase in the number of training programs. As the number of training programs expanded, an early growing pain was the application process to programs, as applicants were applying to multiple programs at the same time. In the past, programs had competed to make the earliest offers for the best applicants, as applicants had no options but to accept their first offer in fear of not securing any position. The resolution came through the cooperation of program directors to

standardize the application process in a fair and transparent manner². The organization of the process allowed for other joint projects such as a national boot camp for IP fellows to gather in their first month of training to have uniformed lectures/ hands-on training. We now have a community of educators/ program directors working collaboratively to foster the educational metrics and career development^{3,4}. Recently, there was a multi-society guideline on the minimum requirements of IP fellowship programs⁵. Involving five different medical societies (ACCP, ATS, AABIP, AIPPD, APCCMPD) to agree on what must be included was nothing short of a small miracle. This allows us to organize our educational efforts and move best practices from isolated silos to national requirements. It also defines institutional and faculty requirements, minimal number of procedures/ faculty, and curriculum.

The standardized training process is critical for several reasons but most importantly, it defines what is an interventional pulmonologist. The curriculum requirements during IP fellowship is the reference for expectation by fellowship applicants, non-IP physicians, patients, and administrators. Employers of IP physicians can objectively assess qualifications without ambiguity. With standardized training comes formal recognition which enhances professionalism by creating practice standards and defined metrics. Only a recognized subspecialty can attract the best and the most talented to commit their careers to further developing IP. This has also been observed in other young specialties where the development of standardized training and metrics leads to better educators and indirectly develop the best graduates.

While we have made major advances in the US, there remains more work to be done. Our future challenges are like other medical educators which includes recognition/ support for educational effort, attracting the best talent, and need for faculty with formal training in education. As our specialty continues to grow, we need to ensure that the next generation of IP physicians are better equipped than the prior. This requires the support of our junior faculty through mentorship and opportunities for grants/ awards as these are the currency of an academic career. Like most problems, the solution probably lies with starting small and escalating up, grants and mentorship opportunities need to start on a society and institutional level which serves as a stepping stone to develop more sophisticated work.

The standardization of training marks the end of the beginning as we mandate minimum requirements of our training programs and their faculty. I'm optimistic of the future as I meet our IP fellows and colleagues who have benefited from our current training system.

References

1. Silvestri GA. *J Bronchology Interv Pulmonol.* 2010;17:1-2.
2. Lee HJ et al. *J Bronchology Interv Pulmonol.* 2011; 18: 5-6.
3. Lee HJ et al. *Chest.* 2013;143(6):1667-70
4. Lamb C et al. *Chest.* 2010; 137: 195-9.
5. Mullan JJ et al. *Chest* 2017; 15(5): 1114-21.

Technology Corner

Stereotactic Body Radiotherapy for Early-Stage Non-Small Cell Lung Cancer

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Introduction: Lung cancer is the leading cause of cancer-related death worldwide. Risk factors include tobacco abuse with heavy smokers having an approximately 20-fold higher risk compared to non-smokers. Unfortunately, the majority of cases are diagnosed after the development of metastatic disease with only ~15% of patients being diagnosed prior to spread to regional lymph nodes or other organs. Fortunately, the proportion of patients with early-stage disease at presentation may increase in the coming years with the routine use of low-dose computed tomography (CT) for screening of high-risk populations. For individuals with early-stage non-small cell lung cancer (NSCLC), the standard of care is currently lobectomy with mediastinal lymph node sampling; however, many patients may not be suitable candidates for this procedure due to medical comorbidities. Alternative options for definitive management include sublobar resection or stereotactic body radiotherapy (SBRT). SBRT uses sophisticated planning techniques to deliver a high cumulative radiation dose to the target lesion in 5 or fewer fractions with the goal of achieving tumor ablation while sparing normal tissues. The use of SBRT for operable candidates remains controversial, although emerging evidence suggests that oncologic outcomes may be comparable to lobectomy (1).

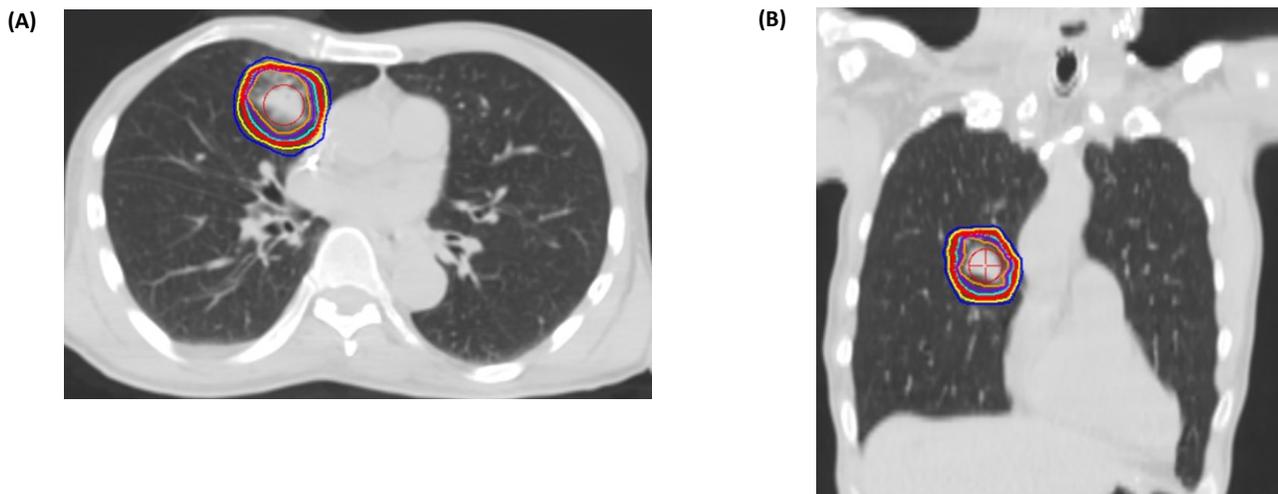
Background: SBRT planning begins with a CT simulation. During this process, immobilization devices are made to allow for reproducible patient set-up at the time of treatment. Additionally, four-dimensional CT is commonly used to assess tumor motion and the necessity for respiratory management during SBRT delivery. This is particularly important for nodules located at the lung bases. For such lesions, respiratory gating may be utilized such that radiation is delivered only during a fixed phase of the respiratory cycle. Alternatively, an “internal target volume” may be generated to treat the lesion of interest with an appropriate margin to account for respiratory motion. Once the CT simulation has been performed, diagnostic imaging may be fused to allow for accurate target delineation. An ideal plan (Figure 1) is then generated using an inverse planning process to select the optimal candidate plan among all possible variations that could treat the target lesion. This process considers prioritized dose constraints in order to deliver the highest possible dose to the tumor while sparing surrounding structures such as the normal lung, heart, proximal bronchial tree, esophagus, spinal cord, and chest wall. Although many different fractionation schemes have been reported for SBRT for early-stage NSCLC, all provide nearly equivalent local control so long as they achieve a biologically effective dose (BED) ≥ 100 Gy (2). BED calculations utilize a radiobiological equation to convert different fractionation schemes to a comparable dose taking into consideration the inherent radiosensitivity of a particular tissue as well as the capacity for repair from radiation-related damage.

Clinical applications: The pioneering phase II North American study investigating the efficacy and toxicity of SBRT for medically inoperable patients with T1-2N0M0 NSCLC was the Radiation Therapy Oncology Group (RTOG) 0236 trial (3). In this study, 59 patients received a total dose of 54 Gy in 3 fractions over 1.5-2 weeks. The 5-year treated tumor control rate was 93%; however, lobar, regional, and distant failure remained significant with a 5-year locoregional failure rate of 38% and 5-year distant failure rate of 31%. SBRT was generally well tolerated with 15 patients experiencing grade 3 or 4 toxicity and no reported grade 5 toxicity. Of note, inoperable patients receiving SBRT for centrally-located, early-stage NSCLC (within 2 cm of the proximal bronchial tree) were observed to experience unacceptable toxicity in a prospective trial performed at Indiana University (4). Specifically, patients with central lesions had 2-year freedom from severe toxicity of 54% compared to 83% for patients with peripheral lesions. Additionally, 4 of 6 treatment-related deaths occurred in individuals with central tumors. Thus, a subsequent prospective investigation by the RTOG (0831) sought to determine the optimal treatment dose for inoperable, centrally-located, early-stage NSCLC. This phase I/II trial used a dose-escalating 5-fraction SBRT schedule ranging from 10-12 Gy/fraction delivered over 1.5-2 weeks (5). In the phase II portion, there was an estimated 7.2% chance of experiencing dose-limiting toxicity when receiving 60 Gy in 5 fractions. Associated 2-year local control, progression-free survival, and overall survival with this dose and fractionation were 87.7%, 54.5%, and 72.7%, respectively. Multiple retrospective studies have also reported acceptable toxicity and local control with other fractionation schemes for centrally-located lesions. The possibility of offering definitive SBRT for medically-operable, early-stage NSCLC remains

controversial. Clinical trials designed to address this issue have been limited by poor accrual. However, in a pooled analysis of two such trials, data from 58 patients showed 3-year overall survival and recurrence-free survival of 95% vs. 79% ($P = 0.037$) and 86% vs. 80% for SBRT vs. lobectomy, respectively (1).

Conclusions: SBRT uses sophisticated treatment planning to deliver ablative doses of radiation to a target lesion in 5 or fewer fractions. For patients with medically-inoperable, early-stage NSCLC, long-term primary tumor control is excellent and estimated to be $\geq 90\%$. A three-fraction regimen is generally well-tolerated for patients with peripheral lesions while centrally-located tumors should be treated in a larger number of fractions to achieve a sufficient biologically effective dose with acceptable toxicity. Unfortunately, prospective trials comparing definitive SBRT to lobectomy for operable patients have been limited by poor accrual but suggest that survival may be comparable between both treatment strategies.

Figure 1: Radiation isodose lines in the (A) axial and (B) coronal planes from an SBRT treatment plan for a patient with medically-inoperable, early-stage NSCLC.



References

1. Chang JY et al. *Lancet Oncol.* 2015; 6:630-7.
2. Onishi H et al. *J Thorac Oncol* 2007; 7 Suppl 3:S94-100.
3. Timmerman RD et al. *Int J Radiat Oncol Biol Phys* 2014; 1 Suppl:S30.
4. Timmerman R et al. *J Clin Oncol* 2006; 30:4833-4839.
5. Bezjak A et al. *Int J Radiat Oncol Biol Phys* 2016; 2 Suppl:S8.

Tips on management of non-malignant complex pleural space

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Background

The complex non-malignant pleural space is typically associated with pleural infection. This review will summarise recent changes to the approach and management of this common clinical problem.

Pleural infection encompasses a spectrum of disorders ranging from exudative effusions to frank empyema and patients may progress through stages of this condition. Pleural infection has a high morbidity and mortality, and around 20% of patients with empyema will die from their disease. This figure is unchanged over the last few decades, despite advances in modern treatment and diagnostic strategies.

Prognostic Indicators

A seminal meta-analysis demonstrated that, in the context of clinical suspicion of pleural infection, an effusion with a pH of <7.20 or frank pus requires immediate drainage to reduce morbidity and mortality (1). These effusions are termed either empyema (frank pus) or complicated parapneumonic effusions (CPPE) (absence of pus and low pH).

Sonographically complex effusions (i.e. the presence of septations and echogenic fluid) are different from a biochemical diagnosis of CPPE (2). While there is suggestive evidence that patients with complex septated pleural effusion (figure 1) on ultrasound have less successful outcomes and a higher mortality than those without (3), prospective and objective data are lacking. One important point is that although septations on ultrasound appear to be solid, at thoracoscopy, they often have evidence of multiple holes which may not appear on ultrasound, and may permit drainage through a single chest tube (figure 2).

The American College of Chest Physicians consensus statement also recommends chest tube drainage in patients with a parapneumonic effusion occupying greater than 50% of the hemithorax, with loculations or thickened parietal pleura, even without the recognised criteria of pus, positive gram stain or pH <7.2 (4).

The RAPID score (5) uses a combination of age, urea, albumin, hospital acquired infection and non-purulence to predict mortality. A multi-centre, prospective observational study in 550 patients has just been completed (the PILOT study) and primary results are expected in the next few months. If proven to be effective, this scoring system may prove clinically important in identifying those with poor prognosis early, and directing aggressive therapy towards them.

Medical Management

The mainstay of management of pleural infection is early diagnosis, appropriate antibiotics, and prompt drainage. There is no evidence that large bore chest tubes are superior to small bore tubes (12F-16F) (6) but regular saline flushes are recommended (7). Appropriate antibiotics should be given depending on the organism grown, local microbiological and resistance patterns. Antibiotics should be given for at least 3 weeks and often considerably longer, based on clinical, ultrasound and inflammatory marker response (7).

Nutrition is an important factor which is often overlooked. Pleural infection is a catabolic condition and supplemental feeding should be considered from the time of diagnosis (7). These patients are at high risk for venous thromboembolism and prophylaxis should be given unless contraindicated (7).

Intrapleural Treatment

Patients who do not respond to medical management may be given intrapleural treatment, require surgical intervention or be considered for medical thoracoscopy / pleuroscopy.

The efficacy of fibrinolytic therapy has been assessed in two multicentre trials. MIST 1 randomised patients to receive streptokinase or placebo, but no statistically significant difference in mortality or need for surgical intervention was shown (8). MIST 2 (9), compared tissue plasminogen activator (t-PA) and deoxyribonuclease (DNase), in combination and alone, to placebo. The combination of t-PA and DNase reduced the percentage of the hemithorax occupied by the effusion, reduced surgical referrals and the duration of hospital stay. There was no change in overall mortality or rate of complications between the arms.

Intrapleural fibrinolytics can therefore be considered in patients who are failing medical management and would not be surgical candidates, but we do not currently recommend their use in the routine management of pleural infection (7), although several centres have started to use them in all cases of “failing” medical therapy prior to surgery (10).

Surgical Intervention

Patients who fail medical management may be referred for surgical intervention, either in the form of a (Video-assisted thoracic surgery) VATS or thoracotomy and decortication. The short term operative mortality is around 5% (11) although VATS may have slightly lower rates of mortality along with reduced complications (12). There are no objective criteria for when patients should be referred for surgical intervention, but it is usually considered in the presence of persisting sepsis AND persisting pleural collection. Surgical treatment is especially valuable where collection has become organised, or a fibrin peel has developed.

The current randomised literature comparing immediate surgical intervention to medical management shows an apparent benefit of immediate surgery (13, 14). However, both studies were small, underpowered and lacked objective decision-making criteria meaning the result is in question. Further adequately powered randomised controlled trials are needed, especially focussing on long term outcomes such as pain and lung function, before we can truly understand whether aggressive medical or surgical management is the optimal first line treatment in pleural infection.

Future Directions

There are a number of unanswered questions in the management of pleural infection. Saline lavage instilled intrapleurally has been shown in a pilot randomised trial to improve pleural fluid drainage and reduce surgical referral (15) – further larger studies are needed with this affordable and simple treatment.

Early medical thoracoscopy may help in the management of pleural infection, with the potential to aid drainage and tube placement but with fewer complications than surgery. Medical thoracoscopy was used first line in 127 patients with pleural infection and a loculated effusion; 94% of these were cured by non-surgical interventions (16). A feasibility study is being undertaken comparing direct medical thoracoscopy to conventional care in the UK (ISRCTN - 98460319).

The management of “chronic” pleural infection in non-surgical candidates is a controversial area. Where previously local anaesthetic rib resection has been considered, indwelling pleural catheters have more recently been used with some positive case series (17).

There are a number of different management options for the complex non-malignant pleural space, but currently this is often decided on a case by case basis. Further studies are needed to prognosticate and also use this information to decide on an evidenced based management strategy.



Figure 1: Ultrasound image of a septated effusion

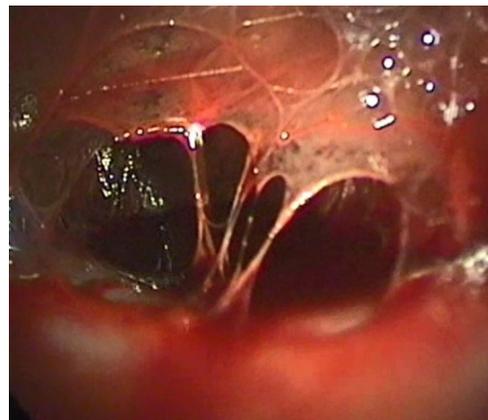


Figure 2: Photograph of septations taken during a medical thoracoscopy

References

1. Heffner JE et al. *Am J Respir Crit Care Med.* 1995;151(6):1700-8.
2. Svirgals PZ et al. *Thorax.* 2017;72(1):94-5.
3. Chen CH et al. *Ultrasound Med Biol.* 2009;35(9):1468-74.
4. Colice GL et al. *Chest.* 2000;118(4):1158-71.
5. Rahman NM et al. *Chest.* 2014;145(4):848-55.
6. Rahman NM et al. *Chest.* 2010;137(3):536-43.
7. Davies HE et al. *Thorax.* 2010;65 Suppl 2:ii41-53.
8. Maskell NA et al. *NEJM.* 2005;352(9):865-74.
9. Rahman NM et al. *NEJM.* 2011;365(6):518-26.
10. Piccolo F et al. *Ann Am Thorac Soc.* 2014;11(9):1419-25.
11. Marks DJ et al. *PloS one.* 2012;7(1):e30074.
12. Chambers A et al. *Interact Cardiovasc Thorac Surg.* 2010;11(2):171-7.
13. Bilgin M et al. *ANZ J Surg.* 2006;76(3):120-2.
14. Wait MA et al. *Chest.* 1997;111(6):1548-51.
15. Hooper CE et al. *ERJ.* 2015;46(2):456-63.
16. Brutsche MH et al. *Chest.* 2005;128(5):3303-9.

Humanitarian News

Humanitarian aid: what is it?

Harvey. Irma. Maria. Mexico earthquake, floods in India, Nepal and Bangladesh. Disaster can strike anywhere, at any time. A natural disaster can be defined as some rapid, instantaneous or profound impact of the natural environment upon the socio-economic system. It implies the presence of an extreme event and the lack of capacity of the human socioeconomic and physiological system to buffer the impact. Barely a year passes without a major natural disaster occurring. Natural disasters have killed millions of people over the last twenty years, impacting the lives of at least one billion more people, and resulting in enormous economic damages.

Natural disasters mean many deaths and thousands of people still missing months later. It also means tens of thousands in need of aid and rehabilitation. The situation is not only about the immediate destruction created by disaster. The damage to people, buildings and economical activities usually will take years to remedy.

The Centre for Research on the Epidemiology of Disasters shows an average of 65% greater frequency in natural disasters over the last decade. Women and children are often the most affected by emergencies, particularly children under the age of 5 and single headed female households. The human responsibility in so-called natural disasters is well acknowledged. The term natural disaster should not be understood as denying a major human responsibility for the consequences. Death tolls are around 250,000 people every year and 95% of those deaths occurs in the Third World. Health and relative economic losses of natural disasters disproportionately affect developing countries. Though richer nations do not experience fewer natural disasters than poorer nations, they do suffer less death from disaster. Economic development provides some insurance against nature's shock effects. However, the impact on the developed countries is not neglectable and even when the number of deaths is small, the damages and the cost of mitigations is increasingly important. According to the UN, the majority of the world's population now lives in areas affected by natural hazards. It is expected that this proportion will continue to rise as a growing number of people are residing in seismic, coastal and other unsafe areas, often in vast and unplanned urban communities. In addition, the OECD estimates that 1.5 billion people live in countries affected by repeated cycles of violence and insecurity.

In the same way, when armed conflict breaks out or natural disasters strike, entire communities are affected, disrupting their day-to-day lives and long-term development prospects. Humanitarian emergency", "man-made disaster", and "complex emergency" are all terms used to refer to a crisis which could be due to armed conflict, population displacement, or a combination of both. The complexity refers to the multifaceted responses initiated by the international community and further complicated by the lack of protection normally afforded by international treaties, covenants, and the United Nations Charter during conventional wars. More than 200 million people live in countries in which complex emergencies affect not only refugees and internally displaced people, but the entire population. The number of dependent refugees under the protection and care of the United Nations High Commissioner for Refugees (UNHCR) steadily increased from 5 million in 1980 to 42.5 million people ended 2011 either as refugees (15.2 million), internally displaced (26.4 million) or in the process of seeking asylum (895,000). Those suffering the consequences of the violence are primarily civilians (50-90%) and especially vulnerable populations of that include children, women, the elderly, and the disabled. In many of those situations, humanitarian aid is the only hope of survival for entire communities.

Humanitarian action is intended to "save lives, alleviate suffering and maintain human dignity during and after man-made crises and disasters caused by natural hazards, as well as to prevent and strengthen preparedness for when such situations occur". It is designed to work during and in the immediate aftermath of emergencies, whereas development aid responds to ongoing structural issues, particularly systemic poverty, that may hinder economic, institutional and social development in any given society, and assists in building capacity to ensure resilient communities and sustainable livelihoods. Both humanitarian and development aid are related, and different forms of aid often have both humanitarian and development components.

Humanity, impartiality, neutrality, independence, voluntary service, unity and universality are the Fundamental Principles of the humanitarian ethics expressed by the International Red Cross and Red Crescent Movement (RCRC), and reaffirmed in UN General Assembly resolutions and numerous humanitarian standards and guidelines. Around the world, most of the humanitarian actors (government and non-government organisations) provide relief and protection programmes in favour of the

Humanitarian News

populations affected by disasters or conflicts guided by those principles. They guide difficult choices such as the dilemmas related to defining priorities when needs exceed limited resources, or the border definition between security of humanitarian workers and access to populations.

The responsibilities of humanitarian aid work are vast and varied. Teams deployed in emergencies are required to initiate rapid assessments and implement appropriate interventions within days of a disaster. They must perform that rapid response in conditions of extreme physical and mental stress and they must work in unfamiliar demographics, cultures, political environments and climates and many times in very uncomfortable or currently, unsafe situations.

The skills sufficient in the beginnings of the of humanitarian NGOs and the initial intergovernmental agencies, are no longer enough to succeed in the current humanitarian environment which has turned more technologically sophisticated, much more morally complex and increasingly violent. The new humanitarians must find the balance between keeping their spirit of volunteers guided for the genuine desire of helping people in need, and the necessary professionalism of technical skills and accountability to the donors.

A great concern for people not involved in humanitarian aid is how much they can trust in a fair and transparent allocation of the collected funds. There is no universal obligation for reporting expenditure on international or domestic humanitarian assistance. However, during the last decade different platforms for international humanitarian assistance like the Organisation for Economic Co-operation and Development (OECD)'s Development Assistance Committee (DAC) and UN Office for the Coordination of Humanitarian Affairs (OCHA)'s Financial Tracking Service (FTS) provide the opportunity for all humanitarian donors and implementing agencies to voluntarily report contributions of internationally provided humanitarian assistance, according to an agreed set of criteria for inclusion. Donors (companies, government, organisations and individuals) may trust that most of the major organisations have a transparent report of the use of their funds.

In summary: humanitarian aid is strongly needed and it has become a highly professional work, from an institutional and from an individual point of view. And it must be reminded that, as stated by Mr Peter Maurer, President of the International Committee of the Red Cross, at the United Nations Security Council in Geneva 2014, there is not humanitarian aid without humanitarian workers. No effective action is possible without allowing humanitarian personnel to go about their work and actively ensuring their safety.

Does this highly professional work mean that the civil society may keep on doing their daily life as if nothing happened? Not at all. Not only the money but mainly the commitment, the involvement, the recognition and the moral support from the civil society are the pillars of the humanitarian aid. Every single worker risking his or her life in a flood, a hurricane, an outbreak or an armed conflict needs the resources to do his or her work properly but mainly needs to know and to feel that many people from their homes are supporting their work in some concrete way. Without that feeling of belonging to the global community of mankind, they are never going to feel strong enough to face hard work, demoralisation and risky situations.

They are helping people on our behalf. They need us. We should not let them down.



**The views expressed in this article are those of the author and do not necessarily reflect the official positions of the Executive Board or International Board of Regents of the WABIP. Dr. Silvia Quadrelli is Vice-chair of the WABIP.*

Education and Training

WABIP “Introduction to Flexible Bronchoscopy” and “Difficult Airway” Courses La Habana, Cuba 2017

In early June this year, an “Introduction to Flexible Bronchoscopy” and “Difficult Airway” Course were conducted by the WABIP in Habana, Cuba under the official endorsement from La Habana University School of Medicine. An experienced bronchoscopist, Dr. Manuel Sarduy and his enthusiastic colleague, Dr. Cristina Borrazas organized the activity, which was held at CIMEQ (Centro de Investigaciones Médico Quirúrgicas).

This was the first time an experience like this occurred in Cuba, allowing a group of participants to get in touch with Bronchoscopy Education Project philosophy. Throughout this day and a half, didactic lectures, interactive sessions, group exercises, and key discussion points were facilitated by Henri Colt (Immediate past Chair WABIP and author of The Essential Bronchoscopy Series of books). A one-day Introduction to Flexible Bronchoscopy program was held for sixteen Cuban physicians in-practice or in-training. The following day a Bronchoscopic Intubation and Difficult Airway Course was conducted using newly developed materials (which will soon be available on the Bronchoscopy International website at www.bronchoscopy.org).

As increasing interaction between students and faculty is key to acquire cognitive, technical, affective, and experiential knowledge, Master Instructors from Argentina (Pedro Grynblat, Artemio García and Patricia Vujacich) provided individualized training using models and assessment tools such as BSTAT. “Step-by-step” personalized instruction was provided to enhance skills at bronchoscopic inspection, biopsy, and intubation. Assessment tools were used to identify weaknesses, maximizing the one-on-one teaching time provided by instructors. This was the very first time such a “learner-centered” approach using simulation was used for bronchoscopic training in Cuba.

Participants also did group-based 4-box practical approach exercises, familiarized themselves with checklists to enhance patient safety, and took part in role-playing to practice informed consent and communication skills. During debriefing sessions, the group declared that change in the educational process in Cuba was desperately needed. Everyone received copies of the Bronchoscopy Education Project Training manual, as well as The Essential Flexible Bronchoscopist (in Spanish).

Our Master Instructors are continuing to mentor our Cuban colleagues, and under the leadership of Manual Sarduy, Cuba is joining the WABIP. Initial plans to implement BEP training materials into the Cuban national training program were undertaken, and already, several Cuban university programs have adopted BSTAT, Step-by-Step, Practical Approach, and the Informed Consent Checklist into their training programs. We welcome Cuba to the WABIP community, and hope that further collaboration and participation will result in expanding bronchoscopic practice (and someday, we hope, introducing endobronchial ultrasound) in Cuba, a country with promising future.



Figure 1: Cristina Borrazas (holding WABIP pennant) and Manuel Sarduy, with course participants and Master instructors Patricia, Pedro, and Artemio (far left).



Figure 2: Participants during a role-playing exercise for informed consent.



Figure 3: Master Instructor Artemio Garcia (Argentina) providing individualized instruction using an inanimate model and bronchoscopy step-by-step.



Figure 4: Group photo of course participants, Cuba 2017

Board of Regents News

NEW Board of Regents Members - The WABIP is honored and pleased to welcome four new members on the Board of Regents. The new Regents are doctors: Isnin Anang Marhana (Indonesia), Sayedul Islam (Bangladesh), Wahyu Aniwidyaningsih (Indonesia), and Koichi Kaneko (Japan).



(Left to right: Dr. Marhana, Dr. Islam, Dr. Aniwidyaningsih, Dr. Kaneko)

WABIP Asia-Pacific Regional Regents Meeting –Board of Regent members are invited to attend this meeting on November 2, 2017, held at the 7th Asian-Pacific Congress on Bronchology in Bali Indonesia. We would like to thank the organizers of the APCB (congress president Dr. Aniwidyaningsih, new WABIP Regent above, and colleagues) to help us make this meeting happen.

20th WCBIP/WCBE Congress – Activities and preparations are underway for the 2018 world congress to be held in Rochester, MN USA on June 13-16, 2018. By going to the official website, you may REGISTER (special discount for WABIP members available), submit your ABSTRACT, submit your VIDEO FESTIVAL entry and much more. Visit the official congress site at <http://www.WCBIPWCBE.com> today!

WABIP Awards Now Open



We are pleased to announce that nominations for the next WABIP Awards are now open. The awards will be presented during the opening ceremony of the WCBIP congress held in Rochester, MN, USA in June 2018. Send us your nominations for the following Awards of outstanding members of the Bronchology and Interventional Pulmonology community: 1) The Gustav Killian Centenary Medal, 2) The WABIP-Dumon Award, 3) The WABIP Lifetime Achievement Award, 4) The Heinrich Becker Young Investigator Awards for Research and Clinical Innovation. Read more at the following link: <https://www.wabip.com/awards>

Spotlight on a WABIP Member Society - Founded in 2008 by Prof. Takehiko Fujisawa, the *Asia-Pacific Association for Bronchology and Interventional Pulmonology* (APAB) is dedicated to contribute further progress of the art and science of bronchology and interventional pulmonology in the Asia-Pacific region -- from the Indian subcontinent in the west, to Japan and the Pacific islands in the east, China in the north and Australia and New Zealand in the south. The association's congress, the APCB (details in the following "Upcoming Events" event), will be held in Bali Indonesia in November 2017. For more information about the association, please visit: <http://apab.jp/index.html>





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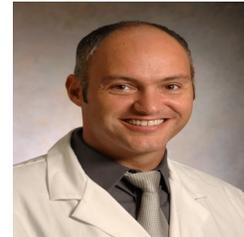
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Research

Expanding the Horizons of Airway Stenting

As the skills and technology march forward, we continue to concur the airway obstructions beyond just the large airways. Until recently, in a myriad of situations including, post-transplant strictures, post-surgical strictures, and other benign and malignant stenosis of lobar airways, our limitations were partly dictated by the lack of ability to stent lobar airways. With smaller and more versatile scopes, sophisticated tools, improved ablation technologies, and perhaps most importantly with the advent of smaller, adaptable, removable, covered, and self-expandable metallic stents we can help patients in a more comprehensive and personalized manner.

Multiple recent publications show their retrospective experience in the use of small stents for smaller airways such as lobar airways. In one study (1) Atrium iCAST stents (Atrium Medical, Hudson, NH) were used for mostly malignant disease/strictures. Originally, these stents were designed as endovascular stents. Hence the small size. They are balloon-expandable, film-cast encapsulated, fully covered metallic stents. These stents were placed in patients with lobar strictures and obstruction with flexible catheters without any significant complications and with good outcomes. The most typical stent size deployed was 6x16 mm. Stent migration and granulation were noted in approximately 10 percent of patients each. Mucous plugging of stents was seen in about 5% of patients. These stents were easily removable.

In another study (2) The SMART nitinol stent (Laser-cut, single Nitinol tube; Cordis, Miami, FL) or PALMAZ (laser-cut stainless steel slotted tube; Johnson & Johnson, New Brunswick, NJ, and Interventional Systems, Warren, NJ) were used. All stents were placed under conscious or deep sedation with flexible bronchoscopes either under fluoroscopic guidance or direct vision. Ablative procedures were performed first in some cases before the stent placement. Majority of these stents were placed for benign indications as opposed to the iCast stents mentioned above, such as post lung transplant stricture at the lobar levels.

The advent of smaller, easily deployable with flexible bronchoscopes, and removable stents is a significant milestone achieved in the field of airway stenting for both benign and malignant diseases. In situations such as in single lung transplant patients with one or two lobar benign strictures beyond the anastomotic site, maintenance of patency with these stents could make a huge difference in the quality and quantity of the patient.

The field of interventional pulmonology continues to gallop forward in all different directions. Benign and malignant, diagnostic and therapeutic, and airways and pleural.

References:

1. Majid A et al. *J of Bronchol & Intervent Pulmonol.* 2017; 24(2): 174-7
2. Fruchter O et al. *J Bronchol Intervent Pulmonol* 2017; 24(3):181-3

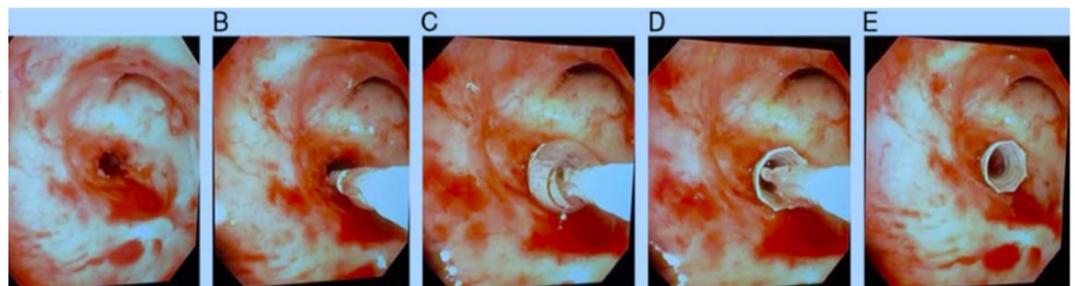


Figure: Atrium iCAST stent (7 16mm 120cm):Left lower lobe airway stenosis (A). Stent with balloon advanced across the stenosis (B). Balloon dilatation of stent (C). Balloon deflation (D). Stent after retraction of the balloon (E). (1)

BRONCHOSCOPY AROUND THE WORLD

Bronchoscopy Education Project activity in Liverpool and Brisbane, Australia

In May 2017, Dr. Henri Colt, with Doctors Jonathan Williamson (Liverpool) and David Fielding (Brisbane), conducted Train the Trainer programs with attached Introduction to Flexible Bronchoscopy Courses for physicians in Australia. Opinion leaders came together to discuss competency-oriented practices, and to enhance their skill using checklists, assessment tools and case-based 4 box approach exercises in a multidimensional instructional program. Role playing exercises were used to practice coaching, and several technical skill stations comprised of airway models were helpful for learning to teach bronchoscopy step-by-step. During the Introduction to Flexible Bronchoscopy course (IFB), trainers applied newfound skills to share cognitive, technical, experiential, and affective knowledge with IFB course participants. Trainers came from throughout Australia, while most of the participants in the IFB program were junior specialists from local and regional medical centers. In addition to enhancing teaching skills, trainers discussed educational philosophies, and ways to overcome existing obstacles to implementing the widespread use of assessment tools and checklists in Australia. Supported by TSANZ, Australian leaders are moving forward with establishing competency oriented training guidelines to complement the apprenticeship model and procedural log maintenance currently in place. The Bronchoscopy International team and WABIP also wish to congratulate Drs. Fielding and Williamson, who have met the criteria to be Master Trainers for the Bronchoscopy Education Project, as well Matt Salamonson, who is now a certified trainer for the program. Two additional Train the Trainer programs are planned in Australia/New Zealand for 2018 to carry this work forward and consolidate the educational paradigm shift down under so that patients may no longer carry the burden of procedurereLATED medical training and to establish a more uniform practice around the country.

Figure 1 A: Physician trainers and course participants conducting a 4box case-based practical approach exercise in Liverpool, Australia. **Figure 1 B:** Dr. Jonathan Williamson (far right) with Introduction to Flexible Bronchoscopy course participants and trainers.



Figure 2A: Dr. Jonathan Williamson and Dr. David Fielding at the Clinical Skills Development Center of Royal Brisbane and Women's Hospital center in Brisbane **Figure 2B:** Train the Trainer faculty participants in Brisbane Australia.



Figure 3A: Trainers teaching bronchoscopy step-by-step using simulation models. **Figure 3B:** Introduction to Flexible Bronchoscopy course participants and bronchoscopy educators from the Train the Trainer program in Brisbane, Australia 2017



WABIP ACADEMY- WEBCASTS

The WABIP has started a new education project recently: *THE WABIP ACADEMY*. The WABIP Academy will provide free online webcasts with new and hot topics that will interest pulmonologists and interventionalists.

Current webcast topic: **Tissue acquisition for biomarker directed therapy of NSCLC**

Webcast

Small Sample Tissue Acquisition and Processing for Diagnosis and Biomarker-driven Therapy of NSCLC

Welcome to WABIP's free online learning tool to increase knowledge regarding the appropriate selection, acquisition, and processing of cytology and histology samples from patients with known or suspected lung cancer.

Click an icon to begin



Program Description



Purpose



General Learning Objectives



Specific Learning Objectives

[TABLE OF CONTENTS >](#)

Each fictitious clinical case scenario is based on a conglomerate of real patient data. Cases have been modified to avoid any possibility for patient identification and to help meet educational objectives. Any resemblance to real persons, living or deceased, is purely coincidental.

The content for these webcasts has been developed by members of the World Association for Bronchology and Interventional Pulmonology. All content was reviewed by an independent multidisciplinary team of experts. Unless otherwise specified, all content is the property of WABIP.

A collaborative project with Pfizer Oncology

[Credits >](#)



You can reach these webcasts by using this link: <http://www.wabipacademy.com/webcast/>

Links

www.bronchology.com	Home of the Journal of Bronchology	www.chestnet.org	Interventional Chest/Diagnostic Procedures (IC/DP) NetWork
www.bronchoscopy.org	International educational website for bronchoscopy training with u-tube and facebook interfaces, numerous teaching videos, and step by step testing and assessment tools	www.thoracic.org	American Thoracic Society
www.aabronchology.org	American Association for Bronchology and Interventional Pulmonology (AABIP)	www.ctsnet.org	The leading online resource of educational and scientific research information for cardiothoracic surgeons.
www.eabip.org	European Association for Bronchology and Interventional Pulmonology	www.jrs.or.jp	The Japanese Respiratory Society
		sites.google.com/site/asendoscopiarespiratoria/	Asociación Sudamericana de Endoscopia Respiratoria

UPCOMING EVENTS

Postgraduate Interventional Pulmonology Course (22nd year, Slovenia)

When: September 29-30, 2017

Where: Golnik, Slovenia

Program Director: Ales Rozman, MD

Program Type: Educational seminar (postgraduate may include physicians in practice and trainees), Educational seminar (for trainees only), Hands-on workshop, Conference (didactic lectures)

Introduction to Flexible Bronchoscopy & Faculty Development Program (Serbia)

When: September 29-30, 2017

Where: University Hospital of Pulmonology, Clinical Center of Serbia, Belgrade Serbia

Program Director: Spasoje Popevic, MD, PhD

Program Type: Educational seminar (postgraduate may include physicians in practice and trainees), Educational seminar (for trainees only), Hands-on workshop

Website: <https://www.wabip.com/upcoming-events-category/312-ifb-fdp-2017>

4th Annual Percutaneous Tracheostomy and Advanced Airway Cadaver Course (MD, USA)

When: October 9, 2017

Where: Johns Hopkins University School of Medicine

Program Director: Hans Lee, MDROSMADI ISMAIL, MD

Program Type: Educational seminar (postgraduate may include physicians in practice and trainees), Hands-on workshop, Conference (didactic lectures)

Website: <https://hopkinscme.cloud-cme.com/aph.aspx?P=5&EID=9772>

ERS School on Interventional Bronchoscopy (Greece)

When: October 12-14, 2017

Where: Sotiria Hospital, Athens, Greece

Program Director: Grigoris Stratakos, MD

Program Type: Educational seminar (postgraduate may include physicians in practice and trainees), Hands-on workshop

Website: <https://www.ersnet.org/professional-development/courses/interventional-bronchoscopy-october-2017>

3rd Annual MABIP Assembly (Malaysia)

When: 3-5 OCTOBER 2017

Where: LE MERIDIEN PUTRAJAYA, MALAYSIA

Program Director: ROSMADI ISMAIL, MD

Program Type: Hands-on workshop, Conference (didactic lectures)

Website: <http://www.mabip.com/>

Asian-Pacific Congress on Bronchology and Interventional Pulmonology 2017 (Indonesia)

When: November 2-4, 2017

Where: Ayodya Nusa Dua Bali, Indonesia

Program Director: Wahyu Aniwidyarningsih, MD, PhD, MD

Program Type: Educational seminar (postgraduate may include physicians in practice and trainees)

Hands-on workshop, Conference (didactic lectures)

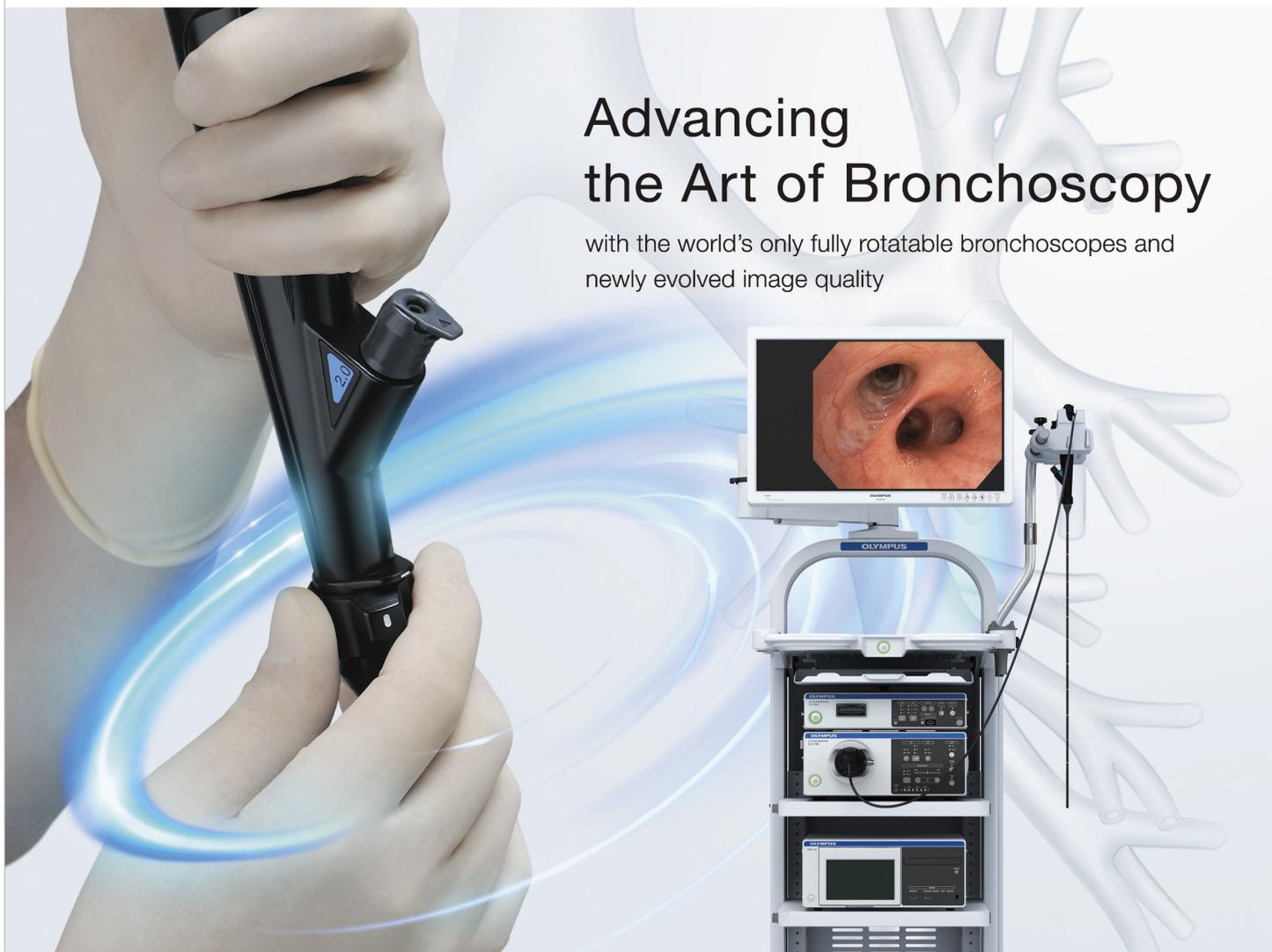
Website: <http://apcb2017.com>

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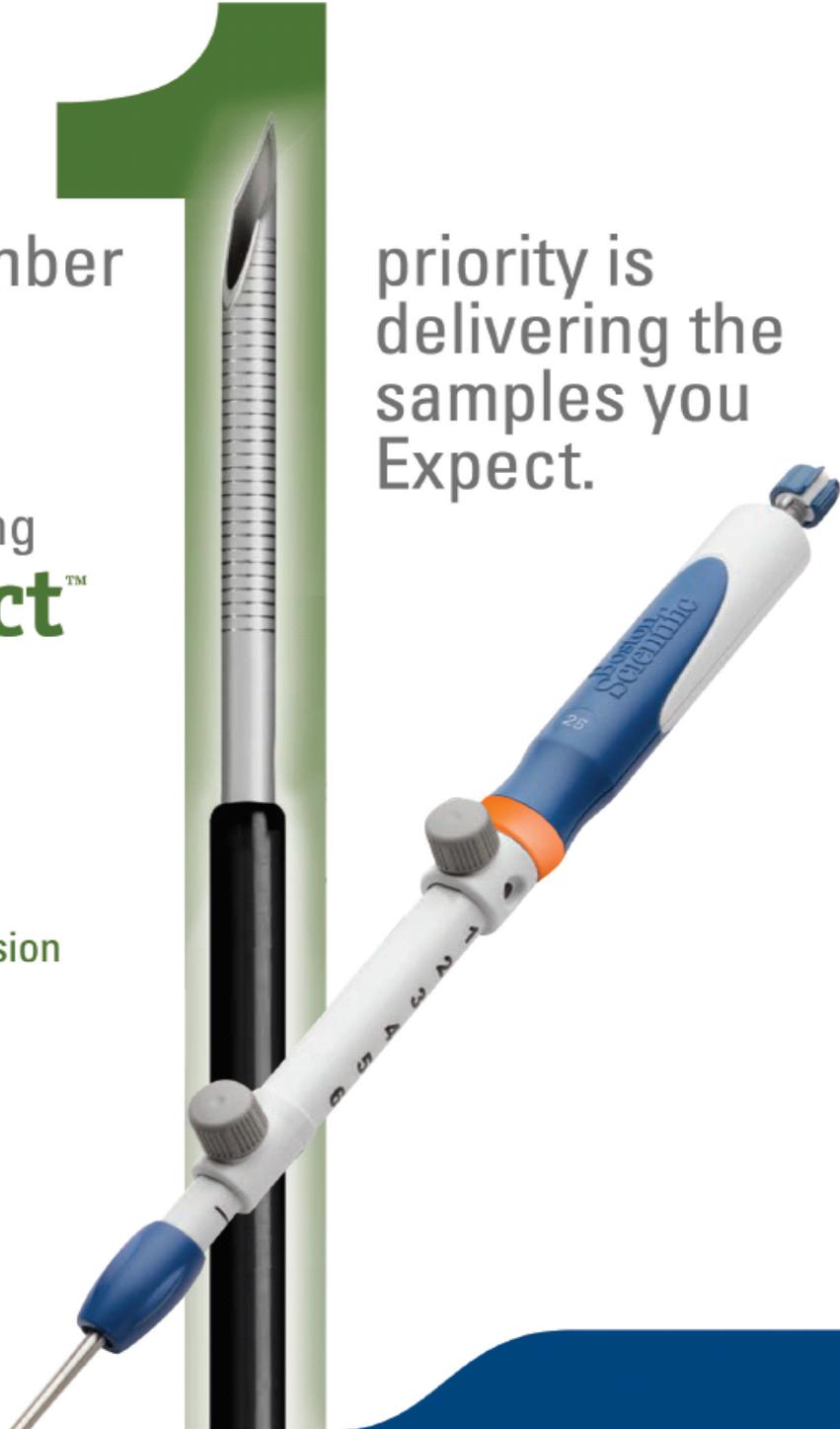
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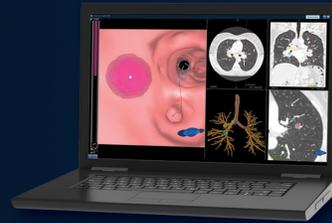
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† Electromagnetic Navigation Bronchoscopy
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