



American Chinese Pharmaceutical Association Newsletter

美洲華人藥學會通訊

Editor: James W. Shaw, Pharm.D., M.S.

March 2003

Message from the President Jonas Wang, Ph.D.

My dear ACPA fellows, I hope that you have had a wonderful winter season. With your kind support and the strong leadership of the ACPA Executive Committee, I am confident that we will continue to grow as an organization. During the first quarter of 2003, the ACPA Executive Committee developed several important programs, which I would like to share with you in the following paragraphs.

First, the ACPA Executive Committee has established several key functional committees to serve the organization. These committees are chaired by the following people: Dr. Chester Lau (General Secretary), Dr. Van Doren Hsu (Finance Committee), Dr. Tony Yu (Fundraising Committee), Dr. James W. Shaw (Communications Committee), Dr. Jinn Wu (Nomination Committee), and Dr. Tsang-Bin Tzeng (Program Committee). I would like to extend my sincere appreciation to these individuals for their dedication and unselfish service to ACPA. Without their kind support and sacrifice, ACPA would not be as successful as it is today. In particular, I would like to thank Dr. James Shaw for taking on the role of chairperson of the Communications Committee. Dr. Shaw has served as editor of the ACPA Newsletter for the past five years.

Second, I would like to remind our ACPA members again that the 6th ACPA International Conference and Workshop will be held in conjunction with the National Taiwan University School of Pharmacy's 50th anniversary on August 1-3, 2003 in Taipei, Taiwan. The final agenda for this conference is included in this issue of the newsletter. Three distinguished professors have been invited to give seminars on pharmacy education: John M. Cassady, Ph.D. of the Ohio State University College of Pharmacy; Leroy B. Townsend, Ph.D. of the University of Michigan College of Pharmacy; and Win L. Chiou, Ph.D. of the University of Illinois at Chicago College of Pharmacy. This international conference offers an excellent opportunity for our members who reside in the US to interact with members living in Asian countries. Further, it provides an excellent forum for the exchange of ideas and

technology. I encourage every member of ACPA to attend this important event.

Third, based on the results of our membership survey that were discussed in the previous issue of the newsletter, the ACPA Executive Committee has decided to develop a promotional program to enhance interconnectedness with China. This is for the specific purpose of facilitating technology transfer and cross-fertilization. Currently, Dr. Jinn Wu is coordinating a professional pharmacy exchange workshop and conference program sponsored by the Chinese Medical Association (CMA). This is an exchange program that will allow pharmacists from China to attend workshops or conferences in the US and vice versa. CMA plans to use this program to enhance the quality of the education received by students at Chinese colleges of pharmacy. In particular, it is hoped that students will gain greater clinical expertise and a better understanding of retail pharmacy operations in the US. The ACPA Executive Committee endorses this program and plans to work closely with representatives from CMA to make it happen. We encourage those who are interested in participating in this program to contact Dr. Jinn Wu for more information.

Fourth, in order to enhance professional interactions between ACPA members living in the US and those living in China or Taiwan, we are soliciting articles from the latter for publication in the newsletter. In this issue, we present an article written by Yen-Huei Tarn, M.S., Ph.D. who is an associate professor at the National Defense Medical Center School of Pharmacy in Taipei, Taiwan. We anticipate publishing many similar articles in the future issues of the newsletter. I wish to extend our thanks to Dr. Tarn for providing us with an insightful discussion of the current state of pharmaco-economic research in Taiwan.

Finally, under the leadership of our immediate past-president, ACPA co-sponsored a Chinese New Year's Gala that was held on February 1, 2003 at the Westin Princeton Hotel in Forrester Village, New Jersey. Along with their spouses, numerous ACPA members attended this celebration including Dr. Jinn Wu, Dr. Chester Lau, Dr. Peter King, Mr. Kilin To, and Dr. Jonas Wang. It was an altogether delightful evening. Dr. Henry Lee of the Connecticut Police Department

delivered the keynote address, and a representative from the office of the governor of New Jersey presented the 40 participating organizations with a congratulatory note. ACPA was also recognized by the Chinese-American Society of New Jersey for its dedication to the Chinese community. Thanks to Dr. Jinn Wu for his superb leadership in organizing this event.

Meeting Announcements

The 6th ACPA International Conference and Workshop will be held in conjunction with the National Taiwan University School of Pharmacy's 50th anniversary on August 1-3, 2003 in Taipei, Taiwan. The main symposium will take place during the first two days and will involve presentations in both English and Chinese. Sessions focusing on drug discovery and development, opportunities in global drug development, pharmacogenetics/pharmacogenomics, and botanical drug products are currently scheduled. A presentation on pharmaceutical education will take place in the afternoon on August 1. The presenters include three renowned educators: John M. Cassady, Ph.D., Dean of the Ohio State University College of Pharmacy; Leroy B. Townsend, Ph.D., Albert B. Prescott Professor Emeritus of Medicinal Chemistry at the University of Michigan College of Pharmacy; and Win L. Chiou, Ph.D., Professor of Pharmacokinetics and Biopharmaceutical Sciences at the University of Illinois at Chicago College of Pharmacy. A workshop will be held on the third day of the conference. All sessions at this workshop will be conducted in Chinese. Workshop topics include drug delivery systems and bioanalytical methods development and validation. At the end of the conference, a tour will be scheduled to a scenic locale in Taiwan or Japan. Detailed tour information will be provided in the next issue of the newsletter. For more information about the conference, please e-mail Dr. Jinn Wu at jwu@xbl.com or Dr. Jonas Wang at Jwang@Sycamorevc.com.

The Chinese Medical Association is sponsoring an exchange workshop and conference program for pharmacists living in China. A delegation of pharmacists from China will be given the opportunity to attend a conference in the US where they will learn about the current state of pharmacy practice in the latter country. At this time, CMA is looking for practitioners residing in the US who would be interested in delivering a presentation to the Chinese delegates at the conference. Presenters should possess specific knowledge in some area relevant to pharmacy practice such as retail pharmacy operations, hospital pharmacy practice, or clinical pharmacy education. It is anticipated that if the program is successful, presenters from the US will be invited to visit China to participate in a larger seminar. Those interested in participating in this program should contact the coordinator, Dr. Jinn Wu, by e-mail at jwu@xbl.com.

Search for Lost Members Chester Lau, R.Ph., M.S.

We are looking for two ACPA members who have fallen out of touch. These include Karina Kwok (last known address Mason, OH 45040) and Nancy Chang (last known address Seattle, WA 98105). If anyone has information about the whereabouts of these individuals, please contact Chester Lau by e-mail at clau@chsnj.org.

Report from the Nomination Committee Marina Chang, R.Ph.

Congratulations to Dr. Wendy Chou and Dr. Van Doren Hsu on being unanimously elected to the office of President-Elect and Treasurer, respectively. Dr. Chou has served as chairperson for both the Nomination Committee and Membership Committee in the past and will assume the role of President of ACPA in 2004. Dr. Hsu is the current ACPA Treasurer and will continue to serve in this capacity for another two years.

Pharmacoeconomic Research Environment in Taiwan Yen-Huei Tarn, M.S., Ph.D. Associate Professor School of Pharmacy National Defense Medical Center Taipei, Taiwan

Overview of the health care system in Taiwan

Prior to the inception of the National Health Insurance (NHI) program, the Republic of China's (i.e., Taiwan's) social insurance was divided into three major sectors: labor insurance, government employee insurance, and farmer health insurance. The Bureau of National Health Insurance Organizational Statute was passed in 1994, and the Bureau of National Health Insurance (BNHI) was formally established on January 1, 1995 as the statutory insurer in charge of NHI operations. The NHI program was officially established on March 1, 1995.

The NHI program targets all Taiwanese citizens as beneficiaries. At the end of 2000, 21.4 million people were enrolled in the NHI plan, which accounted for 96.2% of the target population. Under the principles of self-reliance, mutual assistance, and risk pooling, the NHI premiums were shared by individuals, group insurance applicants, and the government. The premium collection rate was 94.2%, and the initial balance of revenues and expenditures was stable. However, starting in 1998, a deficit appeared.

Reimbursement for the utilization of medical resources was by fee for service for both inpatient and outpatient services. Starting in 1998, case payment methodology was used for 50 procedures and surgeries. Dental care was reimbursed by a global budget system. However, global budgets were implemented for Chinese medicine, primary care, and hospital care in 2000, 2001, and 2002, respectively. Renal dialysis and respiratory ventilation were reimbursed using per-diem methods.

Table 1 shows expenditures for outpatient care in Taiwan between 1997 and 2000.¹ Outpatient care includes all services received from primary care practitioners as well as outpatient clinics affiliated with hospitals. Drug expenditures accounted for 33.0-34.6% of the total expenses associated with outpatient care. Pharmacist dispensing fees rose significantly over the four years due to an increase in the number of prescriptions. In Taiwan, orders for multiple drugs may be written on a single prescription. The dispensing fee is tied to the prescription (i.e., the piece of paper) and not to the number of drugs ordered. Ergo, regardless of the number of drugs ordered on a single prescription, the dispensing fee remains unchanged. Drugs used in inpatient care accounted for approximately 15.5% of total inpatient care expenditures. Between 1997 and 2000, it is estimated that roughly 25% of all health care expenditures were allocated toward Western medications.

Drug pricing system in Taiwan

There are at least three methods to decide the price of to-be-listed new pharmaceutical product in Taiwan: the median price of ten countries, the international price ratio using one or more comparators, and the cost of a course of treatment or days' supply using a single comparator. Advantages or disadvantages of a new product with respect to efficacy, dosage form, and pharmacokinetics will add to or deduct from the initial price. Under a few circumstances, the lowest price of 10 countries or price-volume negotiation strategies will be used. The estimated time needed from submission to public announcement of the reimbursement price is three to six months. After receiving a notice of price approval from BNHI, a pharmaceutical manufacturer has seven days to either accept or reject the price. The reimbursement price is guaranteed for one year. During that time, the only mechanism through which the price may be cut is the annual price-volume survey.

When seeking price approval for a new pharmaceutical product, a manufacturer must provide cost-effectiveness evidence to be evaluated by BNHI and the Pharmacy Benefit Committee. The submission dossier should include references to medical efficacy or medical effectiveness trials, i.e., cost studies in which the participants have been randomly assigned to treatment.

Current pharmacoeconomic studies

Up until January 2003, only one new drug product, donepezil, had been evaluated by BNHI based on pharmacoeconomic

evidence. According to the BNHI, if the estimated market for a new product exceeds NT\$100 million/year (US\$3 million/year), then a price-volume negotiation strategy can be considered. BNHI will negotiate the price of the new product with the pharmaceutical manufacturer for three years. At the end of the third year, a pharmacoeconomic study must be completed using cost and outcomes data from the Taiwanese population.

BNHI recommends that a pharmacoeconomic study be performed whenever a product is first launched in Taiwan. Since local physicians will lack experience with the product, outcomes data may be referenced from the primary literature. However, any modeling study must use cost data from the Taiwanese population.

Currently, a number of pharmacoeconomic studies sponsored by international research-based pharmaceutical companies are ongoing in Taiwan. Hepatitis treatments are major concern in Taiwan. Approximately 20% of the population in Taiwan has hepatitis B, and 2.9-5.4% of the population has hepatitis C.²⁻³ Novel treatments for hepatitis B and C are commercially available but are very expensive. Therefore, BNHI needs to decide whether or not to reimburse for these drug products. Also, due to a global budget system and the trend toward disease management, there is a growing interest among hospital managers and medical practitioners in cost-effectiveness data. It is believed that economic evaluation will be a hot issue for academia, industry, and health care decision makers during the next decade.

Government perspective

The development of a standardized protocol for economic evaluation is still in the beginning stages in Taiwan. Guidelines published by Canada and Australia have been reviewed; however, experts in this field are lacking. BNHI has appointed a few scholars from academia to develop an evaluation procedure. Following the lead of the Canadians, BNHI is trying to develop a Taiwan Coordinating Office for Health Technology Assessment. A written document showing the strong will of BNHI regarding pharmacoeconomic evaluation is also being developed.

Academic training for pharmacoeconomics

At this time, only one school of pharmacy in Taiwan offers graduate coursework in pharmacoeconomics. Five professors at this school have had training on health economics and are interested in exploring the field. On August 9, 2002, a professional pharmacoeconomic association, the Taiwan Society for Pharmacoeconomics and Outcomes Research, was formed. The first conference held by this new association attracted nearly 200 participants.

Conclusion

The health care system in Taiwan is facing the need for economic evaluations of medical devices, procedures, and drug therapies. The climate will become even more favorable

for outcomes research once BNHI formally announces its new policy in the next few months. In Taiwan, the era of pharmacoeconomic research and evaluation will begin very soon.

Acknowledgement

This document was reviewed by officers in BNHI who are responsible for the new drug approval process. Their contributions to the final version of this article are greatly appreciated.

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Table 1. Outpatient care expenditures for Western drugs and medical services

	1997		1998			1999			2000		
	Exp. ^a	%	Exp. ^a	%	$\Delta\%$ ^b	Exp. ^a	%	$\Delta\%$ ^b	Exp. ^a	%	$\Delta\%$ ^b
Diagnosis fees	48.44	32.99	52.28	31.74	7.93	54.19	30.18	3.65	52.76	28.94	-2.64
Treatments and medical supplies	45.32	30.87	52.01	31.57	14.75	57.55	32.05	10.65	59.76	32.78	3.85
Drugs	48.38	32.95	54.84	33.29	13.37	61.09	34.02	11.40	62.98	34.55	3.09
Dispensing fees	4.70	3.20	5.59	3.39	18.96	6.74	3.75	20.44	6.81	3.74	1.17
Total	146.84	100.00	164.72	100.00	12.18	179.56	100.00	9.01	182.31	100.00	1.53

^a Expenditures given in NT\$1 billion

^b Percent change from last year

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