

Annals of Internal Medicine

Contents

Volume 132 Number 1 AIMEAS 132(1)1-96(2000) US ISSN 0003-4819

INTRODUCTION

Time and Medicine 3

S. Kern

To introduce the articles in this issue, which treat the ways time shapes the theory and practice of medicine, this essay surveys developments in thinking about the nature of time from the beginning of the 20th century.

SOCIAL MEANING OF TIME

Doctoring to the Music of Time 11

R.V. Lee

What patients believe about time has much to do with their notion of health and medicine. Synchrony of time sense between physician and patient shapes the objectives and the content of care and compliance; asynchrony leads to frustration and failure.

The Doctors of Time 18

W.J. Hall

Does the aging process have some purpose, and to what extent can we control what are otherwise inexorable consequences? Although various philosophical traditions have offered different interpretations of the relation between age and time, a more unified concept of human aging may be emerging.

Time and Medical Education 25

K.M. Ludmerer

As the 21st century approaches, time is disappearing from the process of teaching and learning medicine, with disturbing implications for the quality of education. Medical educators in the future must work as hard to defend the availability of sufficient time as they do to acquire new buildings and research funds.

TECHNOLOGIES OF TIME

The Technologies of Time Measurement: Implications at the Bedside and the Bench 31

S.J. Reiser

This essay explores how chronologically linked indices of health and illness achieved clinical and scientific significance and examines why time has been a potent concept through which key associations among the data of medicine are ordered and revealed.

Concepts of Time in Clinical Research 37

J.M. Samet

The study of events in time is fundamental to biomedical research and public health surveillance. Research designs that incorporate time have long been in use, and new statistical methods have been developed for enhanced analysis of longitudinal data. In the next millennium, these designs and methods will continue to evolve and will provide better, sharper answers.

Dimension of Time in Illness: An Objective View 45

Y. Shahar

It is almost impossible to represent and analyze clinical data in the absence of a temporal dimension. This paper emphasizes the crucial role that tasks of temporal reasoning and temporal maintenance play in modern medical information. It also discusses the implications of providing automated support to clinicians who must perform such tasks as part of broader clinical activities.

PERSONAL TIME

Leave of Absence 55

K.A. Scannell

When I discovered that I had cancer 1 hour and 40 minutes before leaving for Paris, I was transported into an eerie seam between thought and feeling.

Personal Time: The Patient's Experience 58

T.J. Murray

When a life-threatening or chronic illness is diagnosed, patients may find that their sense of time, the passage of days, and their view of the future are altered. They move from a sense of linear time to a sense of soul-satisfying time, and they begin to see life more in terms of cycles of daily events, routines, and the change of seasons.

Medicine, the Novel, and the Passage of Time 63

R. Charon

This essay examines the medical charts of two patients. As a repository of detail not only about the patients but also the doctors and nurses who cared for them, the charts provide rich and powerful evidence about the insides of practice and the meanings that clinical relationships accrue.

(Continued on page I-2)

Postmaster: Send changes of address to Customer Service, *Annals of Internal Medicine*, 190 N. Independence Mall West, Philadelphia, PA 19106-1572.

Annals of Internal Medicine is published twice monthly and copyrighted © 2000 by the American College of Physicians—American Society of Internal Medicine, 190 N. Independence Mall West, Philadelphia, PA 19106-1572, USA. Basic USA subscription price is \$119.00 per year. Periodicals postage paid at Philadelphia, Pennsylvania, and at additional mailing offices. Canada Post International Publications Mail Sales Agreement #1412817. (ACP/Brokers, 1031 Helena Street, Fort Erie, Ontario L2A 5N8, Canada.) GST ID#128512159.

PAST, PRESENT, AND FUTURE		SECTION IMAGES	
Changing Times: Reflections on a Professional Lifetime. An Interview with Paul Beeson	71	René Magritte: <i>Time Transfixed</i>	2
<i>R.V. Lee</i>		Few paintings transfix a viewer like Magritte's image of a miniature locomotive emerging in full steam from a fireplace beneath a clock with equal-length hands, into a bleak room without carpet, candles, or conversation. Here time and motion have been arrested. According to Einstein's Special Theory of Relativity, this can occur only at the speed of light. According to patients and physicians, this occurs often in the course of illness.	
The Future of Physicians' Time	80	Wheel of Life Thangka	10
<i>I. Morrison</i>		For 2000 years, wheels have symbolized the Buddhist dharma, or law: the cycle of birth and rebirth. The Tibetan Wheel of Life is a detailed representation of the transience and cyclicity of existence. The wheel is grasped by the huge and hideous Yama or Shenje, the Lord of Death, showing that all beings must eventually meet death. The figure of the Lord Buddha is outside the wheel (upper right and left), signifying his enlightenment and escape from life's repetitive cycle.	
Some Things Have Not Changed	85	J. Farey: <i>Ancient Movements</i>	30
<i>L.H. Clever</i>		Fascination with clocks and clockworks produced many finely detailed depictions of their intricacies. The horologist's craft continues to captivate and command large prices for personal timepieces. It is always something of a surprise to realize how much clocks have come to dominate our lives. Time, however, is an intimate, living, human sequence to which the technology of timekeeping is subservient, or ought to be.	
EDITORIALS		Stephanie Pershing: Typical tuberculosis cure house	54
Speed: The Challenge to Medicine in the New Era	90	Before isoniazid, sanatorium treatment was the standard of care for patients suffering from tuberculosis. Good food in quantity, rest, and fresh air were the ingredients. Patients were put out on porches and balconies every day, all day, regardless of the weather or temperature. For many it worked, but at a cost. Tuberculosis was a dread sentence, an ostracism from companions and customs. Time slowed. Years in the "san" were, for most, time lost.	
<i>R.V. Lee and F. Davidoff</i>		Giacomo Balla: <i>Dynamism of a Dog on a Leash</i>	70
Medical care moves through time, a choreography for the dance between patients and their caregivers. The essays on time and medicine in this issue reveal a spectacular array of alternative views of time and of ways that medicine intersects with time's many facets.		As Thomas Eakins did in the cover photograph, Giacomo Balla superimposed successive images in time to produce a dynamic impression of movement. Unlike the man on the cover, however, the dachshund and his mistress seem to be stationary—"spinning their wheels," as it were.	
www.annals.org	92	COVER IMAGE	
<i>F. Davidoff</i>		Thomas Eakins: Unidentified model, 1884.	
As befits this new year, this new century, and this (almost) new millennium, an entirely new electronic version of <i>Annals</i> is currently under development and will be up and running several months from now. What will be new about the new e-journal? Nearly everything.		Courtesy of Philadelphia Museum of Art, Gift of Charles Bregler.	
LETTERS		Subscription Information	I-3
Talking about Treatment	93	Information for Authors	I-4
Granulomatous Nephritis as the First Manifestation of Whipple Disease	94	Authors' Form	I-11
Topical Treatment of Warts and Mollosca with Imiquimod	95		
MEDICAL WRITINGS			
Book Notes	96		