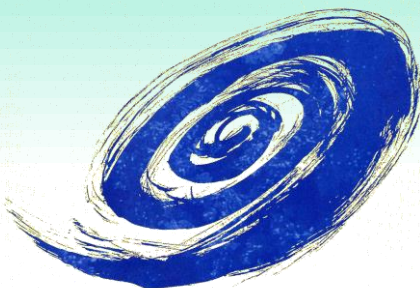


# UMIN

SINCE 1989



University hospital Medical Information Network Center  
University hospital Medical Information Network  
Infrastructure for Academic Activities

<https://www.umin.ac.jp/>

UMIN has grown into an internationally unparalleled large-scale and multipurpose public research and education information network. It has become an important and indispensable part of the infrastructure for the daily research and education activities of those working in the medical field in Japan.

- 1988 Launched in the Central Medical Information Department at the University of Tokyo Hospital
- 1989 N1 protocol information services begin
- 1994 Internet information services begin
- 1997 UMIN Electronic library for biomedical sciences begin
- 1999 National university hospital VPN network (UMIN-VPN) operational
- 2000 Internet Medical Data and Information Center (INDICE) is launched
- 2002 Independent installation of University Hospital Medical Information Network Center in the University of Tokyo Hospital
- 2004 UMIN Steering Committee reorganised as the National University Hospital Director Standing Committee UMIN Council
  - Online clinical study training evaluation system (EPOC) starts operation
- 2005 UMIN Clinical Trials Registry (UMIN-CTR) is operational
- 2006 Online dental clinical training evaluation system (DEBUT) operational
- 2009 Medical case data import function offered in CDISC ODM format for INDICE
  - Wiki, blog, and BBS functions added to membership website service (UMIN 2.0)
  - UMIN 20<sup>th</sup> anniversary ceremony and commemorative speeches held
- 2011 UMIN Clinical Conference system (UMIN CC) operational
- 2013 Individual Case Data Repository service (UMIN-ICDR) function added to the UMIN Clinical Trials Registry (UMIN-CTR)
- 2017 Data registration function offered in CDISC CTR-XML format for UMIN-CTR
  - Cloud version functionality added for researchers to set up the screen on INDICE themselves

**A UMIN ID is necessary to use UMIN services.  
Apply online based on your usage credentials.**

As a rule, **one** personal-use UMIN ID and password are issued **per person**. After receiving them, all services operated by UMIN may be used with the exception of those that require rights of use.

**Please note that INDICE will require the acquisition of a separate dedicated password (a general password for the UMIN ID and an INDICE-specific password) for security reasons.**

Group representative and business-use UMIN IDs are also available. See the following URL for details.

<https://www.umin.ac.jp/id/uminid/touroku00.htm>

Inquiry Form

<https://www.umin.ac.jp/faq/>

FAX

**03-5689-0726**

**University hospital Medical Information Network Center (UMIN Center)**

The University of Tokyo Hospital, Administrative Research Building 4<sup>th</sup> Floor

Hongo 7-3-1, Bunkyo Ward, Tokyo, 113-8655



### 1. Data collection services according to CDISC standards

We began accepting data collection services according to CDISC standards on October 19, 2009.

### 2. UMIN INDICE lower level data communication protocol for CDISC ODM

We make the receiving side specifications open to the public when clinical data is automatically sent electronically from the electronic medical records or EDC systems of medical institutions (effective July 5, 2013).

### 3. Forensic Medicine Database System\*

Based on FY2011 scientific research promotion projects (Grant-in-Aid for Scientific Research [Challenging New Research]), we implemented the 'construction of a facility-specific and nationwide aggregate database of post-mortem certificates using CDISC standards'.

In this project, we developed a Windows version of CDISC client software for post-mortem certificates run by each facility. Because of this software, registering data at each facility is now easier, and the forensic analysis of deaths by unnatural causes can be conducted more efficiently in Japan. We can expect cause-of-death investigations to become more accurate throughout the country.

(\*This system was featured in *Legal Magazine*.)

### 4. UMIN-CTR

We implemented trial information registration functionality in a CDISC CTR-XML format for UMIN-CTR trial information registration. By supporting CDISC standard formats, which have international standards and norms, it has become easier to link information with other institutions (effective in 2017).



## UMIN-CTR

### [UMIN Clinical Trials Registry](https://www.umin.ac.jp/ctr/index-j.htm)

## <https://www.umin.ac.jp/ctr/index-j.htm>

This is a clinical trial registration system provided by UMIN that meets the standards of the International Committee of Medical Journal Editors (ICMJE). UMIN-CTR is recognised as an ICMJE 'acceptable registry' that belongs to the Japan Primary Registries Network in the WHO International Clinical Trials Registry Platform.

Over 85% of clinical trial registrations in Japan are registered in UMIN-CTR.

UMIN-CTR was chosen as the database to be installed by the National University Hospital Directors Committee and is described in the 'Ethics Guidelines Regarding Medical Research of Human Subjects'. It is expected to be used for the registration of study plans before research begins and for results after studies have been completed.

UMIN-CTR also accepts trial information registrations in CDISC CTR-XML format, making it easier to link information with other institutions.



38,764 registrations  
as of January, 2020



## UMIN-ICDR

### [UMIN Individual Case Data Repository](https://www.umin.ac.jp/icdr/index-j.html)

## <https://www.umin.ac.jp/icdr/index-j.html>

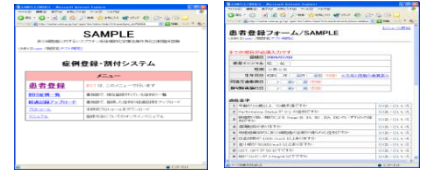
The medical case data repository has been implemented with the addition of the UMIN Clinical Trials Registry. This system allows researchers to store anonymised individual case datasets for their own clinical studies in UMIN servers based on their agreement, and UMIN bonds the contents to a third party. The importance of this repository has recently been recognised internationally because the following results are anticipated. UMIN is taking the lead globally by installing it.

1. Check for research data forgeries and falsifications
2. Prevent the concealment of inconvenient statistical analysis results by researchers (including providers of research grants)
3. Ensure data analysis reproducibility



This is a system for aggregating medical research data from clinical trials, epidemiological studies, and case registrations (including case registration assignments) over the Internet.

It is an electronic case report that allows both UMIN server and originally developed medical research data aggregation to be customised for each project. Since October 2009, it has conformed with CDISC standards.

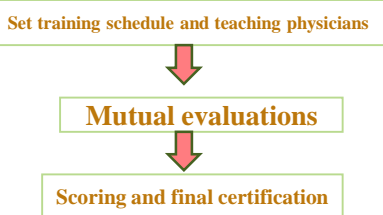


- 1. Inexpensive** Because it is shared, package software for aggregating servers and data can be used at a low price.
- 2. Secure** Thorough operation results, with about 255 research projects and roughly 6.72 million total registered cases\* (January 2020) (\*Not including NCD aggregated cases)
- 3. Stable** Dedicated systems engineers strive for stable operations through application management and maintenance around the clock
- 4. Safe** Operates with security measures such as firewalls, encryption, and invasion detection
- 5. Easy** UMIN takes care of everything from hardware operation management to software development, installation, and maintenance, to security management.  
 Around 460,000 medical professionals use UMIN IDs to enter medical case data.
- 6. Meets CDISC Standards** Meets CDISC standards (ODM format for case registration, a standard for the exchange of clinical trial data)

In 2017, we began offering INDICE Cloud as well, a service that allows researchers to customise INDICE functions and run their own electronic case reports. Research projects running on INDICE Cloud do not have software development or support from UMIN, but this service can be used for free; additionally, it can be used for projects with a smaller number of cases. The servers are managed by UMIN to ensure safety and stability.

1. Real-time access from collaborating hospitals and institutions
2. Mutual evaluations for training and teaching physicians
3. Evaluation requests via email
4. Health professional evaluations
5. Graph evaluations with auto aggregation
6. CSV data downloads of evaluation data
7. Improvements in training programmes with versatile analysis of evaluation data
8. Loss prevention and limitless storage of evaluation data

### Basic Operation Flow



### Standard

- Leaves evaluation records for each training department
- Permits teaching physician evaluations
- Permits training facility evaluations

### Minimum

- Entry-level version condensed to the essentials of the multifunction Standard version
- EPOC introduction can be carried out easily



Fig.: Standard EPOC evaluation graph

### DEBUT System Features

- Exceptional versatility, as it can be used in any place that has an Internet connection
- Evaluation items can be customised for each training programme
- Both training and teaching dentists can give feedback about clinical training programmes

### Expected Results of Adopting the DEBUT System

- The objectives, plans, and evaluations of dentists' clinical training curricula will be complete, and the quality of clinical training will improve.
- By using a mutual evaluation (feedback system) for training programmes elicited from both training and teaching dentists, clinical training systems will be improved through the organisation of better training programmes.



Fig.: Training records

1. Digital submissions and reviews of lecture abstracts and academic journal papers

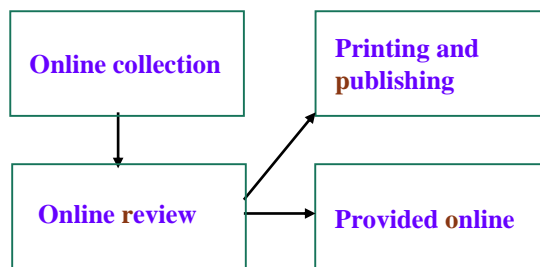
⇒ Saves time and effort

2. Early stage automatic creation of a bibliography database

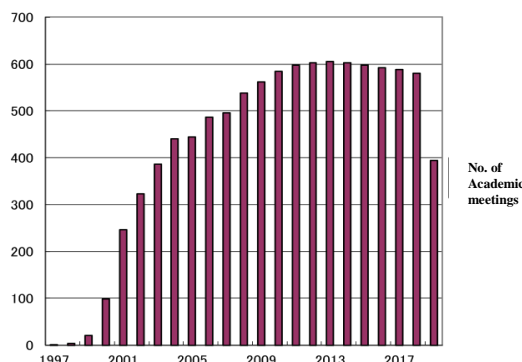
⇒ Aiming for researchers' convenience

3. Low-cost operations

⇒ Applicable to all academic conferences and journals with a shared system



Usage in Academic Conferences by Year



Links member list to member website access rights and member mailing list

Member list (group member) management  
Member list search system (OASIS)

Member mailing list service use (OASIS/ISLET)

- Mailing list archives

Member website service use (OASIS/ISLET)

- Members-only website (HTML files)
- Members-only Wiki (PukiWiki/MediaWiki)
- Members-only BBS (digital bulletin board)
- Members-only blog



Fig.: PukiWiki



Fig.: BBS



Fig.: Blog

## Member System Online Service

Online Academic Society Information Service

<https://www.umin.ac.jp/islet/>

### Main User Conferences

- Japan Society of Thrombosis and Haemostasis Conference
- Japan Clinical Rheumatology Conference
- Japan Psychosomatic Internal Medicine Conference
- Japan Urinary Function Conference
- Japan Respiratory Organ Surgery Conference
- Japan Footcare Conference
- Japan Clinical Neurology and Physiology Conference
- Japan Endocrinology Conference
- Japan Pediatric Cardiovascular Conference
- Japan Nuclear Medicine Technology Conference
- Japan Pathology Conference
- Japan Cardiovascular Surgery Conference