

## Feasibility Of Using Partograph By Practitioners Of Indian

Sue Townsend, creator of the much-loved Adrian Mole series, tells a compassionate and gritty story of love and loss in Ghost Children Seventeen years ago Angela Carr aborted an unwanted child. The child's father, Christopher Moore, was devastated by the loss and retreated from the world. However, when he makes a horrifying discovery on the heath, he finds that he is compelled to confront Angela about the past. As they start seeing each other again, can they avoid past mistakes? And will their future together be eclipsed by the mistakes of yesterday?

An essential textbook for students of obstetrics and gynaecology as well as women's health more generally.

"This reference manual is intended for use by skilled providers (including midwives doctors and nurses) who care for womans experiencing normal pregnancies, births, and postpartum periods, as well as their normal newborns, in low-resource settings."

Each year more than 4 million children are born with birth defects. This book highlights the unprecedented opportunity to improve the lives of children and families in developing countries by preventing some birth defects and reducing the consequences of others. A number of developing countries with more comprehensive health care systems are making significant progress in the prevention and care of birth defects. In many other developing countries, however, policymakers have limited knowledge of the negative impact of birth defects and are largely unaware of the affordable and effective interventions available to reduce the impact of certain conditions. Reducing Birth Defects: Meeting the Challenge in the Developing World includes descriptions of successful programs and presents a plan of action to address critical gaps in the understanding, prevention, and treatment of birth defects in developing countries. This study also recommends capacity building, priority research, and institutional and global efforts to reduce the incidence and impact of birth defects in developing countries.

Meeting the Challenge in the Developing World

Demystifying Qualitative Research in Pregnancy and Childbirth

A Guide for Doctors, Nurses, and Midwives

Handbook of Research on Information Technology Management and Clinical Data Administration in Healthcare

Textbook of Obstetrics - E - Book

MHealth

This practical manual has three main objectives: to draw attention to the urgent issue of obstetric fistula; provide background information along with principles for developing fistula prevention and treatment strategies and programmes; and contribute to the development of more effective services for women under treatment for fistula repair.

Optimizing outcomes for women in labor at the global level requires evidence-based guidance of health workers to improve care through appropriate patient selection and use of effective interventions. In this regard, the World Health Organization (WHO) published recommendations for induction of labor in 2011. The goal of the present guideline is to consolidate the guidance for effective interventions that are needed to reduce the global burden of prolonged labor and its consequences. The primary target audience includes health professionals responsible for developing national and local health protocols and policies, as well as obstetricians, midwives, nurses, general medical practitioners, managers of maternal and child health programs, and public health policy-makers in all settings.

Reliable information on how health service strategies affect the poor is in short supply. In an attempt to redress the imbalance, 'Improving Health Service Delivery in Developing Countries' presents evidence on strategies for strengthening health service delivery, based on systematic reviews of the literature, quantitative and qualitative analyses of existing data, and seven country case studies. The authors also explore how changes in coverage of different health services affect each other on the national level. Finally, the authors explain why setting international targets for health services has been not been successful and offer an alternative approach based on a specific country's experience. The book's findings are clear and hopeful: There are many ways to improve health services. Measuring change and using information to guide decisions and inform stakeholders are critically important for successful implementation. Asking difficult questions, using information intelligently, and involving key stakeholders and institutions are central to the "learning and doing" practices that underlie successful health service delivery.

Known as the "bible" of midwifery, this new edition of Varney's Midwifery has been extensively revised and updated to reflect the full scope of current midwifery practice in a balance of art and science, a blend of spirituality and evidence-based care, and a commitment to being with women.

Life Saving Skills Manual

Improving Health Service Delivery in Developing Countries

Ghost Children

High Risk Pregnancy & Delivery

WHO Recommendations on Intrapartum Care for a Positive Childbirth Experience

Vol.19, No.4 December 2015

Intrapartum care has undergone profound changes over the past 50 years. This book examines these changes and their intersection in midwifery practice, in particular their impact on the role of the midwife during labour and birth. Addressing a wide range of topics surrounding normal birth, this unique and diverse book provides an up-to-date, holistic overview of current knowledge, research and practice. The contributions from experts in the field include discussion of the evolution of intrapartum care and debates about childbirth education, as well as looking at birth environments, labour rhythm.

"This multi-volume book delves into the many applications of information technology ranging from digitizing patient records to high-performance computing, to medical imaging and diagnostic technologies, and much more"--

From the reviews of the 3rd Edition... "The standard reference for anyone interested in understanding flow cytometry technology."

American Journal of Clinical Oncology "...one of the most valuable of its genre and...addressed to a wide audience?written in such

an attractive way, being both informative and stimulating." Trends in Cell Biology This reference explains the science and

discusses the vast biomedical applications of quantitative analytical cytology using laser-activated detection and cell sorting. Now

in its fourth edition, this text has been expanded to provide full coverage of the broad spectrum of applications in molecular

biology and biotechnology today. New to this edition are chapters on automated analysis of array technologies, compensation, high-

speed sorting, reporter molecules, and multiplex and apoptosis assays, along with fully updated and revised references and a list of

suppliers.

This Manual accompanies a course on the delivery of safe emergency obstetric care.

Concepts, Methodologies, Tools and Applications

Obstetric Fistula

WHO Recommendations for Augmentation of Labour

Reproductive, Maternal, Newborn, and Child Health

Improving Quality of Care in Low- and Middle-Income Countries

Pregnancy, Childbirth, Postpartum, and Newborn Care

African Journal of Reproductive Health (AJRH) is a multidisciplinary and international Journal published quarterly (March, June, September, and December) by the Women's Health and Action Research

Centre (a Non-governmental Organization with headquarters in Nigeria). The publication of the journal started in 1997. The journal focuses on publishing original research, comprehensive review articles,

short reports and commentaries on reproductive health in Africa. It strives to provide a forum for both African and foreign authors working in Africa to share findings about all aspects of reproductive

health and also to disseminate innovative, relevant, and useful information on reproductive health throughout the continent.

The Guest Editors have assembled top experts to provide the most current and clinically relevant articles devoted to Birth Asphyxia. Articles in this issue are devoted to: Neonatal Transition After

Birth Pathophysiology of Birth Asphyxia; Perinatal Asphyxia from the Obstetrical Standpoint: Diagnosis and Interventions; Stillbirths: U.S. and Global Perspectives; Novel Approaches to Resuscitation and

Impact on Birth Asphyxia; Multiorgan Dysfunction and its Management After Birth Asphyxia; Neonatal Encephalopathy and Update on Therapeutic Hypothermia and Other Novel Therapeutics; Biomarkers in

Neonatal Encephalopathy; Imaging and Other Diagnostics in Neonatal Encephalopathy; Asphyxia in the Premature Infant; The role of the NeoNeuro Unit for Birth Asphyxia; Long-term Cognitive Outcome

After Birth Asphyxia and the Contribution of Identified Perinatal Asphyxia to Cerebral Palsy; Global Burden, Epidemiologic Trends, and Prevention of Intrapartum Related Deaths in Low-resource Settings;

Neonatal Resuscitation in Low-resource Settings.

This textbook of obstetrics will be an updated comprehensive book for both the undergraduates and postgraduates. This will also be a handy, practical reading material for those practising obstetrics.

It covers as per the latest revised curriculum of Medical Council of India. History taking for important obstetric conditions have been included which will be of great help to students during the examination.

Commonly asked questions provided at the end of every chapter in order to have immediate self-assessment and identify the learning needs. 50 clinical case scenarios provided to

students to practice the steps of evaluation and clinical management. Emphasis on communication, informed consent, clinical documentation in an exclusive chapter which is most often an overlooked

topic. Compilation of the important scientific trials in obstetrics that can be of great help to the postgraduates. Coloured photographs and videos on important practical topics in obstetrics so as to give

impact and better understanding. First step in operating theatre is a chapter that addresses the common important aspects of operating room standards which will help the undergraduates especially

when they graduate to be residents. Chapter on decision making algorithms for some of the essential topics to simplify the understanding of these conditions. Easy, comprehensible language with concise

and focused information for students to understand even complex entities in obstetrics.

Every year throughout the world, about four million babies die before they reach one month old, most during the critical first week of life. Most of these deaths are a result of the poor health and

status of the mother, combined with problems such as tetanus or asphyxia, trauma, low birth weight, or preterm birth. However, many of the conditions which result in perinatal death are preventable

and treatable without the need for expensive technology. Against this background, this publication contains guidance on evidence-based standards for high quality care provision during the newborn period,

considering the needs of mother and baby. It has been produced to assist countries with limited resources to reduce neonatal mortality. The information is arranged under four main headings: clinical

assessment, findings and management; principles of newborn baby care; procedures; record keeping and essential equipment, supplies and drugs.

Education Material for Teachers of Midwifery

Intrapartum Care

Managing Complications in Pregnancy and Childbirth

Midwifery Education Modules

Clinical Technologies: Concepts, Methodologies, Tools and Applications

Reducing Birth Defects

Quality of care is a priority for U.S. Agency for International Development (USAID). The agency's missions abroad and their host country partners work in quality improvement, but a

evidence about the best ways to facilitate such improvements has constrained their informed selection of interventions. Six different methods - accreditation, COPE, improvement of standards-based management and recognitions (SBM-R), supervision, and clinical in-service training - currently make up the majority of this investment for USAID missions. As their substantial investment in quality grows, there is demand for more scientific evidence on how to reliably improve quality of care in poor countries. USAID missions, and many other organizations spending on quality improvement, would welcome more information about how different strategies work to improve quality, when and where certain tools are most effective, and how to measure success and shortcomings. To gain a better understanding of the evidence supporting different quality improvement tools and clarity on how they would help advance the improvement agenda, the Institute of Medicine convened a 2-day workshop in January 2015. The workshop's goal was to illuminate these different methods, discussing their pros and cons. The workshop summary is a description of the presentations and discussions.

The emphasis of the manual is on rapid assessment and decision making. The clinical action steps are based on clinical assessment with limited reliance on laboratory or other tests when possible in a variety of clinical settings.

This Book Guides Readers Through Qualitative Research. The Text Is Timely And Informs Clinicians And Researchers About The Rationale For, And Tools Of, Qualitative Research Methods. It Will Help To Break Down Barriers, Where They Exist, Between Obstetricians And Midwives On Concepts Of What Makes For Good Research In Maternity Care. The Information In This Book Guides Readers Through All Stages Of The Research Process. The Journey Through The Chapters Will Enlighten Them To The Purpose Of Qualitative Research; Inform Them Of Considerations Before They Commence Any Research; Outline The Theoretical Underpinning Of The Approach; Highlight Important Ethical Issues; Discuss Different Methods Of Data Collection; Explore The Process Of Analysis; Suggest Ways Of Assessing Qualitative Research; Demonstrate How To Integrate Qualitative And Quantitative Research; And Provide Examples Of How To Explore Research Of Those Who Are Hard To Reach. Pivotal To This Information Are Real Research Examples From Maternity Settings, With Which Readers Can Relate.

This book is the first authoritative, in-depth publication about global midwifery and the contribution of skilled professional midwives to the provision of high quality maternity care, reducing maternal and newborn mortality and morbidity. It demonstrates actions that are contributing to the achievement of the 2030 Sustainable Development Goals through partnership with women and their families, enabling them to 'survive, thrive and transform'. The book explores how the world is becoming more connected through globalisation, advances in technology and innovation, but also more inequitable as women and children are disproportionately affected by issues such as poverty, environmental vulnerability, hunger, conflict, violence, and discrimination. It considers how midwives contribute to maternal and newborn health, leading to greater equity and empowerment and, ultimately, strengthening health systems. The 'three pillars' of midwifery are regulation, education and professional midwives' associations. The importance of evidence-based care is explored along with different models of midwifery and the challenges of developing professional leadership. This book also considers women's human rights to sexual and reproductive health and respectful maternity care, stressing the importance of culturally sensitive and contextually appropriate approaches. Midwives and other professionals will benefit from this reliable resource that indicates direction and provides information about the principles of professional midwifery. This text also provides universities, organisations, and individuals with a highly relevant resource to better equip them for international midwifery practice. It is also a policy makers a reliable source of evidence-based information for consideration in various evolving national and international situations. .

Feasibility of Using Partograph by Practitioners of Indian System of Medicine (AYUSH): An Exploratory Observation

Global Midwifery: Principles, Policy and Practice

Intrapartum Ultrasonography for Labor Management

Management of Normal and High-Risk Labour during Childbirth

Twelfth Five Year Plan, 2012-2017: Social sectors

A Guide for Skilled Provider

*This book deals with the management of labour, guiding the readers to recognize problems by keen monitoring, based on anatomical and physiological understanding of labour. In this era of technology, this book revives the fading art of identification of clinical signs and symptoms. The chapters are well-structured, covering different aspects from suspicion to identification of the problems by recognizing subtle warning signals by the fetus and the uterus. Operative deliveries and common obstetric emergencies with their appropriate management are also covered. It provides practical points to prevent, anticipate, recognize, and manage problems during labour. Key Features Helps to identify clinical signs and symptoms that infuses the reader with confidence to identify and manage abnormal situations during labour and childbirth through the feel of their fingers and awakened understanding. A must have book for all postgraduate trainees and practitioners of obstetrics, eager to learn the fundamentals of labour management. Features illustrated cases helpful in learning management of normal labour and pick abnormal labour, at the earliest possible deviation from normalcy.*

*"This book presents theoretical and empirical research on the value of information technology in healthcare"--Provided by publisher.*

*Это обновленное, всеобъемлющее и консолидированное руководство по оказанию основной помощи в интранатальный период включает новые и проверенные временем практики, рекомендуемые Всемирной организацией здравоохранения (ВОЗ), совокупное применение которых обеспечит качественную научно обоснованную помощь независимо от условий проведения родов и общего уровня здравоохранения. Рекомендации предназначены для всех стран и регионов и учитывают различия в доступности медицинской помощи в разных точках земного шара, внутри стран и между странами. В руководстве подчеркивается важность целостного подхода, ориентированного на ожидания и потребности роженицы и на соблюдение прав человека, что позволяет сделать роды максимально комфортными для матери и ребенка. В документе представлена глобальная модель ухода в интранатальный период, учитывающая комплексность и многообразие принятых методов и современных практик. Рекомендации призваны помочь в разработке программ здравоохранения и клинических протоколов на национальном и местном уровнях. Документ предназначен для законодателей на всех уровнях власти, руководителей и исполнителей программ по оказанию помощи матерям и новорожденным, руководителей*

учреждений здравоохранения, представителей неправительственных организаций и профессиональных сообществ, которые участвуют в планировании и управлении службами охраны здоровья матерей и новорожденных, медицинских работников (в том числе медицинских сестер, акушеров, гинекологов и врачей общей практики), а также научных работников, участвующих в подготовке медицинских кадров.

*A concise and comprehensive review book that provides all essential elements you need to prepare for the American Midwifery Certification Board examination.\* Covers all aspects of full scope midwifery practice management\* Provides concrete study strategies and test taking tips that help you to be as prepared as possible\* Includes multiple choice exam questions to refine your test taking skills*This easy to follow AMCB certification review book is excellent for the new grads and busy professionals. Authored by certified nurse-midwives with extensive experience in both education and clinical practice, this book provides a clear plan for to help you be successful on the AMCB exam the first time! Seven major chapters address primary care, gynecology, antenatal, intrapartum and postpartum care, including newborn and a section on professional issues. Each chapter contains a thorough review of physiology and pathophysiology, followed by assessment, diagnosis and treatment using most recent professional standards of care and evidenced based practice.

*Oxford Textbook of Global Health of Women, Newborns, Children, and Adolescents*

*Opportunities for Africa's Newborns*

*Practical Data, Policy and Programmatic Support for Newborn Care in Africa*

*Рекомендации ВОЗ по уходу в интранатальный период для формирования положительного опыта родов*

*Essential Obstetric and Newborn Care*

*From Evidence to Action*

This guide provides a full range of updated, evidence-based norms and standards that will enable health care providers to give high quality care during pregnancy, delivery and in the postpartum period, considering the needs of the mother and her newborn baby. All recommendations are for skilled attendants working at the primary level of health care, either at the facility or in the community. They apply to all women attending antenatal care, in delivery, postpartum or post abortion care, or who come for emergency care, and to all newborns at birth and during the first week of life (or later) for routine and emergency care. This guide is a guide for clinical decision-making. It facilitates the collection; analysis, classification and use of relevant information by suggesting key questions, essential observations and/or examinations, and recommending appropriate research-based interventions. It promotes the early detection of complications and the initiation of early and appropriate treatment, including time referral, if necessary. Correct use of this guide should help reduce high maternal and perinatal mortality and morbidity rates prevalent in many parts of the developing world, thereby making pregnancy and childbirth safer.

The evaluation of reproductive, maternal, newborn, and child health (RMNCH) by the Disease Control Priorities, Third Edition (DCP3) focuses on maternal conditions, childhood illness, and malnutrition. Specifically, the chapters address acute illness and undernutrition in children, principally under age 5. It also covers maternal mortality, morbidity, stillbirth, and influences to pregnancy and pre-pregnancy. Volume 3 focuses on developments since the publication of DCP2 and will also include the transition to older childhood, in particular, the overlap and commonality with the child development volume. The DCP3 evaluation of these conditions produced three key findings: 1. There is significant difficulty in measuring the burden of key conditions such as unintended pregnancy, unsafe abortion, nonsexually transmitted infections, infertility, and violence against women. 2. Investments in the continuum of care can have significant returns for improved and equitable access, health, poverty, and health systems. 3. There is a large difference in how RMNCH conditions affect different income groups; investments in RMNCH can lessen the disparity in terms of both health and financial risk.

This collection reviews national policies that critically influence economic performance in developing countries. It describes principles that shape good economic policy and illustrates them with case studies. In an overview that draws together insights from the essays, the volume editor explains why poor countries need sound government policies to offset unfavorable conditions, including scant natural resources, adverse problems that occur with monetary and exchange rate policies and financial sector reform. The basic rules for monetary policy in an open economy are developed along with the different ways in which financial reform and financial repression affect an economy. Practical ways to deal with foreign exchange markets are described. They include such arrangements as multiple exchange rates for commercial transactions and dual rates that separate commercial and financial transactions. Also examined are the ways in which trade liberalization and trade restrictions impede economic development. Advice is given on developing a uniform structure that balances the administration of taxes with the efficiency of a tax structure. The book examines the relationship between budget deficits and money creation and suggests management strategies for developing sound economic policy that include advice on inflation control, international trade, import restrictions, income tax rates, and price and wage controls. Published for the World Bank by Oxford University Press.

Maternal and child morbidity and mortality affect women and children all over the world. In low resource settings, it is often the result of an illness which under other circumstances would be preventable and treatable. The disease burden predominately occurs in developing countries, but the dangers facing women and children are global issues. To improve conditions for women and children everywhere, we must address maternal and child health in their own right, and ask how they affect each other. The Oxford Textbook of Global Health of Women, Newborns, Children, and Adolescents is a comprehensive study of the cycle of life. The development of children is traced from pre-natal through to newborns, childhood, and adolescence. Posing child health against maltreatment, injury, and malnutrition, this book asks uncomfortable but necessary questions, and discusses how to influence policy and inspire change. Following women from adolescence to motherhood, it discusses sexual and reproductive health, HIV, injury, pregnancy,

mental health, and much more. With examples from high- and low-resource settings presented by experts in the field, the Oxford Textbook of Global Health of Women, Newborns, Children, and Adolescents is a unique resource for medical practitioners everywhere. Divided into eight sections, it takes a life course approach to female health. With a clear structure, helpful illustrations, and study questions at the end of each chapter, it is an easy to use manual for healthcare workers treating patients in the clinic and out in the field. Through its descriptions of the main challenges and explanations of the key theories in the field, this is the ideal textbook for medical students in paediatrics, obstetrics, nursing, midwifery, and other related areas. Looking to the future, it is also an invaluable starting point for policymakers and anyone with a general interest in the subject area.

A Guide for Midwives and Doctors

Country Profile

Guiding Principles for Clinical Management and Programme Development

Practical Flow Cytometry

Disease Control Priorities, Third Edition (Volume 2)

This updated book is a practical guide to intrapartum ultrasonography to help practitioners improve labor and delivery, and to limit, where possible, complications. Presenting the authors' experiences, the book summarizes the state of the art in normal and abnormal labor. It clearly documents the use of intrapartum ultrasonography to evaluate the first and second stages of labor and diagnose the occiput posterior and transverse positions. Each situation is analyzed with the help of numerous informative images and invaluable tips and tricks showing how fetal head engagement and progression can be documented objectively. The importance of ultrasound in obstetrics risk management is also addressed. Explaining how intrapartum ultrasonography can be used to assess whether a safe natural delivery is likely or whether operative procedures are required, the book is a valuable resource for all professionals – physicians and midwives alike – caring for women in labor. This up-to-date, comprehensive and consolidated guideline on essential intrapartum care brings together new and existing WHO recommendations that, when delivered as a package, will ensure good-quality and evidence-based care irrespective of the setting or level of health care. The recommendations presented in this guideline are neither country nor region specific and acknowledge the variations that exist globally as to the level of available health services within and between countries. The guideline highlights the importance of woman-centered care to optimize the experience of labor and childbirth for women and their babies through a holistic, human rights-based approach. It introduces a global model of intrapartum care, which takes into account the complexity and diverse nature of prevailing models of care and contemporary practice. The recommendations in this guideline are intended to inform the development of relevant national- and local-level health policies and clinical protocols. Therefore, the target audience includes national and local public health policy-makers, implementers and managers of maternal and child health programs, health care facility managers, nongovernmental organizations (NGOs), professional societies involved in the planning and management of maternal and child health services, health care professionals (including nurses, midwives, general medical practitioners and obstetricians) and academic staff involved in training health care professionals.

Feasibility of Using Partograph by Practitioners of Indian System of Medicine (AYUSH): An Exploratory Observation WHO Recommendations on Intrapartum Care for a Positive Childbirth Experience World Health Organization

The use of mobile and wireless technologies to support the achievement of health objectives (mHealth) has the potential to transform the face of health service delivery across the globe. A powerful combination of factors is driving this change. These include rapid advances in mobile technologies and applications, a rise in new opportunities for the integration of mobile health into existing eHealth services, and the continued growth in coverage of mobile cellular networks. According to the International Telecommunication Union (ITU), there are now over 5 billion wireless subscribers; over 70% of them reside in low- and middle-income countries. The GSM Association reports commercial wireless signals cover over 85% of the world's population, extending far beyond the reach of the electrical grid. For the first time the World Health Organization's (WHO) Global Observatory for eHealth (GOe) has sought to determine the status of mHealth in Member States; its 2009 global survey contained a section specifically devoted to mHealth. Completed by 114 Member States, the survey documented for analysis four aspects of mHealth: adoption of initiatives, types of initiatives, status of evaluation, and barriers to implementation. Fourteen categories of mHealth services were surveyed: health call centres, emergency toll-free telephone services, managing emergencies and disasters, mobile telemedicine, appointment reminders, community mobilization and health promotion, treatment compliance, mobile patient records, information access, patient monitoring, health surveys and data collection, surveillance, health awareness raising, and decision support systems.

Health in Myanmar

Basic Maternal and Newborn Care

Labor, Delivery and Puerperium

National Guidelines, Prevention of Mother-to-child Transmission of HIV in Nepal

Workshop Summary

Cumulated Index Medicus

"The six modules aim to help skilled practitioners think critically and make effective decisions on the basis of solid knowledge and understanding of these complications. When using the modules for basic midwifery programmes, it is understood that students should already be competent in most of the basic skills such as measuring blood pressure, performing a vaginal examination, conducting a normal delivery and prevention of infection. The modules were released in 1996 and have now been updated in line with recent evidence and the WHO clinical guidelines. Each module can be taught independently of the other modules. It is however advisable to work through all of them."--World Health Organization website.

The goal of the present guideline is to consolidate guidance for effective interventions that are needed to reduce the global burden of maternal infections and its complications around the time of childbirth. This forms part of WHO's efforts towards improving the quality of care for leading causes of maternal death especially those clustered around the time of childbirth in the post-MDG era. Specifically it presents evidence-based recommendations on interventions for preventing and treating genital tract infections during labour childbirth or puerperium with the aim of improving outcomes for both mothers and newborns. The primary audience for this guideline is health professionals who are responsible for developing national and local health protocols and policies as well as managers of maternal and child health programmes and policy-makers in all settings. The guideline will also be useful to those directly providing care to pregnant women including obstetricians midwives nurses and general practitioners. The information in this guideline will be useful for developing job aids and tools for both pre- and inservice training of health workers to enhance their delivery of care to prevent and treat maternal peripartum infections.

Obstetrics, Gynaecology and Women's Health

Birth Asphyxia, An Issue of Clinics in Perinatology, E-Book

Essential Midwifery Practice

Making Motherhood Safe

Life-saving Skills Manual for Midwives

New Horizons for Health Through Mobile Technologies