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E-Newsletter

State Institute of Health and Family Welfare (SIHFW), Jaipur, Rajasthan

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From the Desk of Director

Dear Readers,

Greetings from SIHFW, Rajasthan!

World Rabies Day is less than a month away and we are hoping that, in its sixth year, it will be more successful than ever. Last year's campaign of World Rabies Day brought the number of countries holding a campaign event to 150, the total number of people educated about rabies to 182 million people and the total number of vaccinated animals to 7.7 million! (Global Alliance for Rabies Control)

The lead article of e-newsletter for September month is on Rabies, spreading the word about rabies prevention even further across the world.

Friends, Rabies in humans is 100% preventable through prompt appropriate medical care.

Director

Health Days in September'12

World Suicide Prevention Day 10th September
World Kindness Day 13th September
World Lymphoma Awareness Day 15th September
World Rabies Day 28th September
World Heart Day 29th September

World Rabies Day

World Rabies Day is celebrated by Centers for Disease Control and Prevention (CDC) and the Global Alliance for Rabies Control (GARC) since 2007, to raise awareness about the impact of human and animal rabies and enhance prevention and control.

Rabies is a zoonotic disease (a disease that is transmitted from animals to humans) that is caused by a virus. It is primarily a disease of terrestrial and airborne mammals, including dogs, wolves, foxes, coyotes, jackals, cats, bobcats, lions, mongooses, skunks, badgers, bats, monkeys and humans. The major source of rabies in humans is from uncontrolled rabies in dogs

Animals sometimes transmitting the disease in India- monkeys, horses, foxes, cows & buffaloes, donkeys, pigs, sheeps.

Animals occasionally transmitting the disease in India- camels, mongoose, jackals, bears, other wild animals

Key facts-World

- Rabies is 100% fatal & viral disease
- Rabies occurs in more than 150 countries and territories
- Worldwide, more than 55 000 people die of rabies every year (mostly in Africa and Asia) an average of one death every 10 minutes
- 40% of people who are bitten by suspect rabid animals are children under 15 years of age
- Dogs are the source of 99% of human rabies deaths
- Wound cleansing and immunization within a few hours after contact with a suspect rabid animal can prevent the onset of rabies and death
- Every year, more than 15 million people worldwide receive a post-exposure preventive regime to avert the disease – this is estimated to prevent 327 000 rabies deaths annually

Source:WHO

Key facts-India

- Rabies is endemic in India Every year about 15 million people are bitten by animals, mostly dogs
- Approximately 36% of the world's rabies deaths occur in India each year
- Most of those are children, come into contact with infected dogs
- An estimated 20 000 deaths in India, three-quarters of them in rural areas

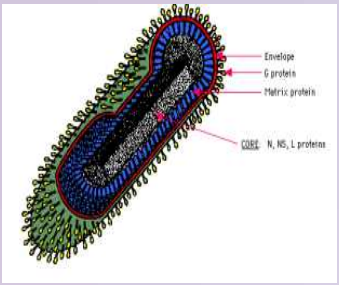
Cases & Deaths due to Rabies in India/Rajasthan

	Year 2009-Cases/Deaths			Year 2010-Cases/Deaths		
	M	F	Total	M	F	Total
India	187	76	263	116	46	162
Rajasthan	2	1	3	0	0	0

Source-NHP-2010

Rabies Virus

Rabies Virus particles are quite large for viruses 180 x 70nm. Bovine Virus Diarrhea of cattle is about 40-60nm in diameter. The Rhabdo virus family has a unique bullet-shaped appearance. The rabies genome encodes five proteins: nucleoprotein (N), phosphoprotein (P), matrix protein (M), glycoprotein (G) and polymerase (L).They are enveloped with prominent spikes on the surface. The envelope is lined by the matrix protein and contains the nucleocapsid (RNA + N protein) wound helically inside the core. As with most enveloped viruses, the particle is relatively fragile outside the host, that's why the victim is asked to wash wound with soap and water.



Transmission of Virus

Rabies is caused by a virus that is transmitted to humans through the saliva from an infected animal comes in contact with the victim's blood, usually by bite wound. Transmission can also occur when infectious material – usually saliva – comes into direct contact with human mucosa or fresh skin wounds. The virus attacks human nervous system. There are two distinct types of rabies.

Human rabies

In most countries of Africa and Asia, dogs are the main hosts and are responsible for most of the human rabies deaths. Rabies is most common in people younger than 15 years; post-exposure prophylaxis is given on average to 40% of children in Asia and Africa aged 5–14 years, and the majority receiving treatments are male.

WHO strategies for human rabies prevention

- Wider access to appropriate post-exposure treatment
- Use of the multi-site intradermal regimen to reduce the cost of post-exposure treatments
- Possible domestic production of rabies biological,
- Continuing education of health and veterinary professionals in rabies prevention and control

Animal Rabies

It is estimated that at least 50 million dogs are vaccinated each year against rabies either in private practices or during national campaigns organized by ministries of health or agriculture. In many parts of Asia and Africa the vaccination coverage established in the dog population (30% to 50%) is not high enough to break the transmission cycle of the disease.

WHO strategies for dog rabies control

- Organization of sustainable mass dog vaccination campaigns;
- Dog population management through reduction of strays, control of trade and movement of dogs, reduction of populations through spaying and neutering;
- Public health education strategies.
- Oral vaccination of domestic carnivores

Who is on Risk?

Dog rabies potentially threatens over 3.3 billion people in Asia and Africa. People most at risk live in rural areas where human vaccines and immunoglobulin are not readily available or accessible. Although all age groups are susceptible, rabies is most common in children aged under 15; They are more likely to be bitten by dogs, and are also to be severely exposed through multiple bites in high-risk sites on the body.

Symptoms

The incubation period for rabies is typically 1–3 months, but may vary from <1 week to >1 year. The initial symptoms of rabies are fever and often pain or an unusual or unexplained tingling, pricking or burning sensation at the wound site. As the virus spreads through the central nervous system, progressive, fatal inflammation of the brain and spinal cord develops.

Two forms of the disease can follow. People with furious rabies exhibit signs of hyperactivity, excited behavior, hydrophobia and sometimes aerophobia. After a few days, death occurs by cardio-respiratory arrest.

Paralytic rabies accounts for about 30% of the total number of human cases. The muscles gradually become paralyzed, starting at the site of the bite or scratch. A coma slowly develops, and eventually death occurs. The paralytic form of rabies is often misdiagnosed, contributing to the underreporting of the disease.

Diagnosis

No tests are available to diagnose rabies infection in humans before the onset of clinical disease, and unless the rabies-specific signs of hydrophobia or aerophobia are present, the clinical diagnosis may be difficult. Post mortem, the standard diagnostic technique is to detect rabies virus antigen in brain tissue by fluorescent antibody test.

Treatment after exposure

Effective treatment soon (within a few days, but as soon as possible) after exposure to rabies can prevent the onset of symptoms and death. Post-exposure prevention consists of local treatment of the wound, administration of rabies immunoglobulin (if indicated), and immediate vaccination.

Local treatment of the wound

Removing the rabies virus at the site of the infection by chemical or physical means is an effective means of protection.

Recommended first-aid procedures include immediate and thorough flushing and washing of the wound for a minimum of 15 minutes with soap and water, detergent, povidone iodine or other substances that kill the rabies virus.

Recommended treatment

The recommended post-exposure prophylaxis depends on the type of contact with the suspected rabid animal.

Recommended post-exposure prophylaxis for rabies infection

Category of exposure to suspect rabid animal	Post-exposure measures
Category I – Touching or feeding animals, licks on intact skin (i.e. no exposure)	None
Category II – Nibbling of uncovered skin, minor scratches or abrasions without bleeding	Immediate vaccination and local treatment of the wound
Category III – Single or multiple trans-dermal bites or scratches, licks on broken skin; contamination of mucous membrane with saliva from licks, exposures to bats.	Immediate vaccination and administration of rabies immunoglobulin; local treatment of the wound

Source-WHO

In Africa and Asia, post-exposure rabies prophylaxis at its present level prevents approximately 272 000 deaths each year

Rabies vaccines

Cell-culture (CCV) and embryonated egg-based (EEV) rabies vaccines (here jointly referred to as CCEEVs) have proved to be safe and effective in preventing rabies. These vaccines are intended for pre-exposure prophylaxis as well as post-exposure prophylaxis, and have been administered to millions of people worldwide.

Intramuscular schedules

Both a five-dose and a four-dose i.m. regimen are recommended for post-exposure vaccination; the five-dose ("Essen") regimen is the more commonly used:

The five-dose regimen is administered on days 0, 3, 7, 14 and 28 into the deltoid muscle.
The four-dose regimen is administered as two doses on day 0 (one dose in the right and one in the left deltoid), and then one dose on each of days 7 and 21 into the deltoid muscle.

Intra-dermal schedules

Intra-dermal administration is an acceptable alternative to the standard intramuscular route. Intra-dermal administration of cell-culture- and embryonated- egg-based rabies vaccines has been successfully used in developing countries that cannot afford the five- or four-dose (Zagreb) i.m. schedules.
"8-site intra-dermal method (8-0-4-0-1-1) for use with HDC (RabivacTM) and PCEVC (Rabipur TM) particularly considered in emergency situations when no RIG is available
"2-site intra-dermal method (2-2-2-0-1-1) for use with PVRV (Verorab TM, Imovax TM, Rabies vero TM, TRC Verorab TM) and PCECV (Rabipur TM)
Source- WHO, Weekly epidemiological record- 6 august 2010, 85th year

Prevention

Eliminating rabies in dogs
Rabies is a vaccine-preventable disease. The most cost-effective strategy for preventing rabies in people is by eliminating rabies in dogs through vaccination

Preventive immunization in people

Safe, effective vaccines also exist for human use. Pre-exposure immunization in people is recommended for travelers to high-risk areas in rabies-affected countries, and for people in certain high-risk occupations such as laboratory workers dealing with live rabies virus and other lyssa viruses, and veterinarians and animal handlers in rabies-affected areas. As children are at particular risk, their immunization could be considered if living in or visiting high risk areas.

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SIHFW in Action

(1.) Trainings/Workshops/Meetings:

S. No.		Title	Total Participants	Sponsoring Agency
1.	**6 August**	ToT on SNCU Plus & Gender Mainstreaming	31(BPM/LHV/MO/MO/IC)	NIPI
2.	**7-8 August**	Workshop on Family Planning Strategy	77(Dy. CMHO, Add. CMHO, & MO, FW)	UNFPA
3.	**7-9, 21-23, 28-30 August**	Routine Immunization (3 Batches)	55 (MO and MO I/C)	RCH
4.	**8 August**	Workshop on Review of NGO-PPM Partnership in RNTCP	70 (Project Officer/Sister/Project Coordinator/MO/GNM)	DMHS
5.	**11-12 August**	Workshop on social work and environment for rural advancement	80 (NGO representatives)	Savera & GVSTK
6.	**13-14 August**	Field Testing of Mobile Application of IMNCI	41 (Consultant, ANM, BHS, BHS, FDC, ASHA, LHV)	UNICEF
7.	**16-18 August**	Workshop on CCE Teachers Guide Book	52 (Senior teacher, WE I/C, Lecturer, Principal, RA, ASF, Head Master)	UNICEF
8.	**21-22 August**	National Workshop on Domestic Workers	65 (NGO partners and domestic workers)	Jagori
9.	**28-29 August**	Orientation Training on CBI-RI	12 (Divisional RI coordinator)	UNICEF
10.	**20 June-28 August 2012**	IV Professional Development Course	15 (BCMO, SMO, MO)	NIHFW

(2.) Monitoring / Field Visits / Studies:

Appreciative Inquiry (AI)

Five members of SIHFW are involved in this UNICEF supported endeavor. Ms Poonam Yadav visited CHC Bassi and Dr Mamta Chauhan visited CHC Behror on 17 August 2012 for coordinating AI workshop. Ms. Nirmala Pater visited SDH Sujangarh, Churu, for the AI workshop during 4-6 August 2012.

Monitoring and Validation- UNICEF

Ms Richa Chabra and Ms Divya Seth visited Dungarpur during 6-9 August for Monitoring and Validation exercise under aegis of UNICEF.

LSAS Examination

SIHFW conducted examination of Life Saving Anesthesia Skills (LSAS) tear-3 of 13 candidates at Department of Anesthesiology and Critical Care, Mahila Chikitsalaya, SMS Medical College, Jaipur. RCH team members- Dr Richa Chaturvedy, Mr. Ankur Asudani and Ms Nirmala Peter, coordinated the examination on 30-31 August 2012.

PDC visit to NIHFW

The PDC IV Batch participants made another visit to National Institute of Health and Family Welfare (NIHFW) New Delhi during 6 to 11 August 2-12. The team was accompanied by Research Officers Dr. Bhumika Talwar and Mr. Ravi Garg.

Mr Davander Arya welcomed the participants and accompanied to Museum & Communication Centre of NIHFW to show the importance of IEC in health care.

Dr. Sanjay Gupta gave introduction regarding NIHFW & various activities conducted by NIHFW. Participants visited NAZ foundation, which provides shelter, education, medical services and other basic facilities for the orphanage or abandon positive children. MAMTA (NGO) was also visited, which works in urban slum for the adolescent's Reproductive & Sexual Health. Clinic namely "SHAAN" running at Safdarjung hospital & "Friends" in urban slum of the Delhi for adolescent's health. We visited at Friends clinic; they are provided out- reach services, clinical services & counseling for the adolescents

Dr Ramesh Kumar of New Delhi Municipal Corporation discussed about Historical & Administritative Framework of NDMC and about OSART System of NDMC in detail. NDMC covers 24.8 sqKm Area, and there are 6 CMOs who are looking different activities /zones.

PDC participants were astonished to see Jai Prakash Narayan Apex Trauma Center, AIIMS, New Delhi. The trauma Center provides care to all injured or accidental cases, Dr. Nirmal Thakur, PRO was facilitated for the visit of center.

Participants also visited National documentation center (NDC) and had an interaction by Prof J.K das Director NIHFW

Dr Utsuk Datta, Prof Department of Education training &

Nodel officer for NRHM training NIHFW & Dr Sanjay Gupta Associate Prof Community Health delivered a session on steps of the action plan.

There was another session on Palika Health Complex (NDMC) by Dr Srivastava, which is the first NABH accredited Dispensary in India.

Group Photograph from PHFI, wherein Director SIHFW (*on chair, right)* and Ms Divya Seth (*first row standing, third from right)* participated in Teaching Curriculum Workshop.

Planned Training/Workshop/Meeting/ Visits

- RI training-4-6, 11-13, 18-20, 25-27 September 2012.
- Ms Bhumika and Ms. Poonam will participate in training on Monitoring NRHM, going to be held during days training 3-7 September 2012, NIHFW, Bhumika and Poonam
- One day ToT on Weekly Iron and Folic Acid Supplements-7 batches starting from 3 September 2012.
- First batch Integrated training for freshly recruited Medical Officers 3 September 2012 (Postponed).
- Review Meeting of NIPI Intervention, 7 September 2012.
- PDC V Batch starting from 12 September 2012
- ToT on Comprehensive Abortion Care-4-9 September 2012.
- Workshop on PPP in Social Sector will be attended by Dr. Akhilesh Bhargava, Dr Vishal Singh, Ms Indu Chaudhary and Ms Richa Chabbra. It will be organised by ASCI during 24-27 September 2012.

Other Highlights

Birthday Celebration

Birthday party for Mr Hemant and Mr Syoji was held on 27 August at SIHFW at *Gol Maze* (Round-table), that's the acronym used for the place meant for most of the SIHFW celebrations.

Efforts of Mr Mohit Dhonkeriya were recognized in form of a Letter of Appreciation, given to him by PDC participants, for Computer teaching Sessions. Kudos!

The PDC IV Batch was completed successfully on 28th August 2012

The Guest reactions

- Way of teaching, management and behaviour of teachers has been appreciated most by almost all the RI training participants (21-23 August 2012)
- Very extensive knowledge provided, it was worth attending the training. (20 June -28 August PDC)
- Variety of sessions and new knowledge gained in PDC. (20 June -28 August PDC)

Health in news

Global

Increase Condom use

Marketing campaigns can double the likelihood of condom use, according to a study published this month in the WHO bulletin. The study showed that people were twice likely to use condoms, on an average, if they were exposed to marketing methods, such as an effective supply of locally-branded condoms, compared to those who has not come across marketing campaigns. Similar results were also found when analyzing condom use in the most recent sexual encounters. Condom use again increased significantly, with rates almost twice as high on average, after they had been targeted at consumers in a marketing drive.

The research was based on all available evidence contained in six studies carried out in India and sub-Saharan Africa between 1990 and 2010, and involving more than 23000 people.

One of the lead authors of the research, from Medical university of South Caroline, said: “Condom social marketing was associated with a doubling of condom use in communities. This demonstrated the need to maintain access to low-cost and free condoms in developing countries. The findings underline the importance of using condoms and the need to continually increase awareness and access to condoms through targeted marketing campaigns that resonate with local consumers and help bring about a change in behaviour. ”

Source: http://www.who.int/mediacentre

Exercise may temporarily ease cigarette cravings

Researchers combined the data from 19 previous clinical trials, and found that a bout of exercise generally helped hopeful quitters reduce their nicotine cravings-though whether that translated into a greater chance of quitting was unclear. “Certainly, exercise seems to have temporary benefits, and as such can be strongly recommended,” said Adrian Taylor, a professor of exercise and health psychology at the University of Exeter in Britain, who lead the study.

In the trials used for the study, smokers were randomly assigned to either–most of brisk walking or biking-or some kind of “passive” activity, such as watching a video or just sitting quietly. Overall, Taylor’s team found, people said they had less desire to smoke after working out than they did before. Exactly why is not clear. Exercise may serve as a distraction, while being active might also boost people’s mood, so that they don’t feel as great a need to feel better by smoking, Taylor said. None of the smoker s in the studies was in a quit program or using nicotine replacement products, such as gums or patches. Since nicotine replacement therapy curbs cravings, exercise might have less of an effect on smokers using these products.

Source: Reuters health, New York, 26 August, 2012

Drug resistant Tuberculosis found

In a large international study, researchers found rates of both multi drug-resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB) were higher than previously thought and were threatening global efforts to curb the spread of the disease.

“Most international recommendations for TB control have been developed for MDR-TB prevalence of up to around 5 percent. Yet now we face prevalence up to 10 times higher in some places, where almost held of the patients…are transmitting MDR strains,” Sven Hoffner of the Swedish Institute for Communicable Disease Control, said in a commentary on the study.

TB is already a worldwide pandemic that in 2010 infected 8.8 million people and killed 1.4 million of them. Drug resistant TB is more difficult and costly than normal TB to treat and is more often fatal.

MDR-TB is resistant to at least two first-line drugs — isoniazid and rifampicin - while XDR-TB is resistant to those two drugs as well as a powerful antibiotic type called a fluoroquinolone and a second-line injectable antibiotic.

Treating even normal TB is a long process, with patients needing to take a cocktail of powerful antibiotics for six months. Many patients fail to correctly complete treatment, a factor which has fuelled a rise in the drug-resistant forms.

Researchers who studied rates of the disease in Estonia, Latvia, Peru, the Philippines, Russia, South Africa, South Korea, and Thailand found that almost 44 percent of cases of MDR TB were also resistant to at least one second-line drug.

Tracy Dalton from the United States Centers for Disease Control and Prevention, who led the study, said that so far, XDR-TB has been reported in 77 countries worldwide.

"As more individuals are diagnosed with, and treated for, drug-resistant TB, more resistance to second-line drugs is expected to emerge," she said, adding “The spread of these drug-resistant strains was "particularly worrisome" in areas with poor healthcare resources and limited access to effective drugs”.

TB is a bacterial infection that destroys patients' lung tissue, making them cough and sneeze and spread germs through the air. Experts say anyone with active TB can easily infect another 10 to 15 people a year. WHO predicts that more than 2 million people will contract MDR TB by 2015.

A report by non-governmental organizations in March warned that $1.7 billion shortfall in global funds to fight TB over the next five years meant 3.4 million patients would go untreated and gains made against the disease will be reversed.

In their research, Dalton and colleagues found that rates of resistance varied widely between countries.

Overall, resistance to any second-line drug was detected in nearly 44 percent of patients, ranging from 33 percent in Thailand to 62 percent in Latvia.

In around a fifth of cases, they found resistance to at least one second-line injectable drug. This ranged from 2 percent in the Philippines to 47 percent in Latvia.

XDR-TB was found in 6.7 percent of patients overall. Rates in South Korea, at 15.2 percent, and Russia at 11.3 percent, were more than twice the WHO's global estimate of 5.4 percent at that time.

"These results show that XDR-TB is increasingly a cause for concern, especially in areas where prevalence of MDR-TB is high," said Hoffner.

Source: Reuters, 29 August 2012

India

India has 76% shortfall in government doctors

After spending around 1% of gross domestic product (GDP) on health in the past five years, the government is proposing an increase in public spending by half a percentage point to make it 1.58% for the coming five years (2012-17) under the 12th Plan.

This is what the draft chapter on health in the Plan document says. Health experts and activists are up in arms at this meager increase because even the Planning Commission's high-level expert group and the steering committee on drafting the Plan had suggested at least 2.5% of GDP as the public health spend.

But, what happens with low spending? The Planning Commission's own analysis of the state of the country's healthcare system reveals the rot within.

The latest available rural health statistics for 2011 show a shocking shortfall of human resources, be it doctors, nurses or other healthcare personnel. According to the Planning Commission's draft, the country's government-run healthcare system is hamstrung because the number of doctors is short of the target by a jaw-dropping 76%, there are 53% fewer nurses, specialist doctors are short by 88%, radiographers are short by 85% and laboratory technicians are short by 80%.

What the shortage of personnel means is that in many states where infrastructure is largely present, the absence of doctors and nurses renders the whole facility meaningless. Thus, Gujarat has only a 5% shortfall of community health centres but only 76 out of 1,220 specialists required are available. In Odisha, there are 377 CHCs although only 327 are required as per norms. But of 1,570 specialists required, only 438 are at work.

The shortfall of medical personnel in several states tells a sorry state of affairs of the health machinery. This is the situation after the Centre spent Rs 33,390 crore, that is 52% of its total NRHM budget, on human resources.

The picture is grim on physical infrastructure too, consisting of the gigantic network of health sub-centres (SC), primary health centres (PHC), community health centres (CHC) and district hospitals (DH). There are supposed to be 1,78,267 SCs in the country on the basis of about one per 1,000 population. In reality, there are only 1,48,124 — about 17% short. Even among the functional ones, more than 40,000 are working out of rented buildings; buildings for 13,000 sub-centres are still being made. A quarter of them don't have water and a similar proportion has no electricity.

The situation is no different as one goes up the ladder. There is an 18% shortfall in PHCs, and an alarming 34% shortfall in CHCs. District hospitals are only 4% short of the target but since all lower centres are short and ill-equipped, the rush to district hospitals causes massive crowding. This is the result after the government spent Rs 17,380 crore or about 27% of its total NRHM budget on setting up infrastructure in the last five years.

Even the physical infrastructure available is unevenly spread across the country. In states like Tamil Nadu, Kerala, Odisha, J&K, Himachal Pradesh and many states in the northeast, there is no shortfall of CHCs. But in states like Assam, Bihar, Karnataka, MP, Maharashtra, UP and Bengal, the shortfall ranges between 33% and 91%. This clearly shows that as much as finances, political will at the state government level is also a key determining factor in the fate of public healthcare.

So, by under-investing in key areas like infrastructure and deployment of qualified personnel, the government appears to have constrained the spread of health facilities for all — and apathy at the state governments' level has further worsened the situation.

Source: Times of India, 16 August 2012

Rajasthan

Asthma Cases on Rise in Dausa

Dausa district has the highest number of cases of asthma and other chronic respiratory diseases per lakh population in Rajasthan while Jodhpur has the lowest. A total of 386 males per one lakh population in rural areas and 239 males per one lakh population in urban areas suffer from asthma and other chronic respiratory diseases in Rajasthan. These were the findings of an annual survey. Similarly, 252 females per lakh population suffer from asthma in rural areas, while 230 per lakh women suffer from it in urban areas in the state.

In Dausa district 1,036 males per one lakh population in rural areas suffer from asthma/chronic diseases while the number is 447 males per lakh in urban areas. Similarly among women, it is 818 per one lakh population in rural areas and 844 per lakh in urban areas.

Source: HT, 8 August 2012

We solicit your feedback:

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